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ORIGINAL ARTICLES.

SOME OBSERVATIONS ON MODERN CEREBRAL SURGERY.[1]

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Two factors have recently led to a radical change in views on the subject of opening the cranial cavity for purposes of exploration. The first of these is the success which has attended the general employment of perfected aseptic surgical technic, and the second, the great advances which have been made by neurologists and physiologists in the localization of cerebral functions. As the advances in these two departments occurred simultaneously it is not surprising that they led to an enormons increase in the boldness of surgeons in exploring the cranial cavity, and to an unwarranted amount of sanguine expectation on the part of the neurologists, who looked forward to the possibility of relief in a large number of conditions which had formerly been regarded as hopeless or necessarily fatal. I think I voice the sentiments of most surgeons of experience in this line of work when I say that up to the present time the results of exploratory cerebral surgery have been disappointing.

Since the publication of my last report I have operated three times, once in a case of cortical hemorrhage, once in a case of Jacksonian epilepsy, and once for the removal of the right Gasserian ganglion for persistent trifacial neuralgia. As the operation in the case of Jacksonian epilepsy was a secondary one to that originally reported in my paper as not improved, my experience to date covers twenty operations on eighteen patients. As a report of each individual case of my series would, I fear, prove a tiresome recital and would be practically a repetition of my previous paper I shall speak briefly of the different conditions requiring exploratory operations, reporting only a few cases for illustration.

Cranial traumatism, with or without fracture of the skull, as is well known, results in a number of conditions requiring prompt surgical interference. These conditions are hemorrhage, contusion, and laceration of the meninges or brain, as well as pressure from depressed bone or inflammatory exudates, and the secondary results of such injuries, as abscesses, cysts, areas of chronic meningitis, or cerebral softening. When these lesions occur over the motor area or other equally well-recognized centers, their diagnosis is a comparatively easy matter, but when present in other locations, as in the so-called silent areas of the brain, their diagnosis is often accompanied by great difficulty and embarrassment.

Without entering into a discussion of the surgical treatment of cranial traumatisms in general, the indications of which are doubtless well-known to all of you, I will simply state that when the patient survives the first shock of the injury death is usually the result not of the actual lesion produced, but of an infection which the nature of the injury favors. The logical treatment in these cases, therefore, when the possibility of infection is recognized, is an exploratory operation, and, if necessary, measures to prevent or combat sepsis. As an example of the untoward results which so frequently follow a failure to carry out this plan of treatment early, the following case, the third of my series, will be mentioned. The patient was a middle-aged man who had been injured by a fall causing a wound over the upper left quadrant of the occipital bone. As his injuries did not seem serious he was transferred from one hospital to another without treatment other than the application of a bandage until he finally reached the City Hospital several days after the injury. When first seen his mental condition was so sluggish as to preclude the possibility of eliciting any definite history. There was moderate continued fever, slow pulse and irregular pupils. He was seen in consultation by Dr. C. A. Herter, who, although unable to arrive at any definite diagnosis, regarded the condition as one of grave intracranial sepsis, with the possible pressure of a cortical abscess at or near the site of injury. A large bone-flap was raised in the usual manner, including the fractured area and the injured dura. Great intercranial pressure was evidenced by the bulging of the brain through the open dura. A moderate amount of leptomeningitis was present, also a small cortical abscess, which was incised, and about a dram of creamy pus evacuated. Gauze packing, partial suture of the flap, and a layer of sterile gauze completed the dressing. No improvement in the patient's condition occurred. Death followed in two days, and the autopsy revealed a

[1] Read by invitation at the meeting of the Plainfield, N. J., Clinical Society, June 20, 1899.

general septic meningitis and distention of the ventricles with sero-pus.

From the examination at the time of operation and at the autopsy it was clear that this patient had sustained a simple depressed fracture of the skull with a slight wound of the dura, producing practically no cerebral symptoms until infection had spread over a considerable area. Had an exploratory operation been performed at once and the area carefully disinfected and properly drained the patient would undoubtedly have recovered promptly.

As examples of some of the remote effects of neglected cerebral traumatism I will give the history of two rather striking cases:

CASE I.—A colored boy, age twenty years, was admitted to the hospital in January, 1899, suffering from rapid pulse, profound stupor, low delirium, and grave sepsis. Upon examination he was found to have the evidences of an active lung-tuberculosis. From his friends it was learned that he had sustained an injury to the skull in the upper middle frontal region some weeks before for which he had been operated upon at the hospital. Since the operation he had gradually become more stupid and irritable. A scar of a transverse incision was found over the center of the skull about one inch back of the margin of the hair. One inch and a half in front of this there was a boggy induration, which upon deep pressure gave the sensation of obscure crepitus. As the lad's condition was extremely critical he was prepared for operation before being seen by me

Under chloroform anesthesia a longitudinal incision was made in the median line from a point one inch above the root of the nose to the center of the old scar. The periosteum was found to be thickened and edematous, and when incised and retracted the bone appeared spongy. A large trephine was employed over the center of this softened area and a button of bone carefully removed. The opening thus formed led to a cavity about the area of a silver half-dollar between the bone and the dura which was filled with thick curdy pus. The diseased bone forming the roof of this cavity was removed with rongeur forceps, the cavity carefully curetted, injected with a solution of formalin, and packed with wet formalin gauze.

The cerebral symptoms were promptly relieved, his temperature dropped to a degree or two above normal, his appetite returned and he began to improve rapidly. The first dressing was made on the sixth day, when the cavity was found to be perfectly clean. Later the wound was dressed with iodoform gauze and allowed to heal by granulation. His recovery from the operation was prompt, uneventful, and satisfactory. He was later transferred to another ward, where I have since learned he died of his tuberculous infection without any return of the cerebral symptoms.

CASE II.—A young man, aged twenty-six years, was admitted to the hospital in January, 1899. December 16th, during a drunken brawl, he was struck on the forehead with an iron bar, after which he walked a short distance, but was finally taken to a hospital, where he remained sixteen days. Nine days after the injury he had a violent fit of muscular tremor lasting several minutes. Later he had five similar attacks, in some of which he lost consciousness. His temperature on admission was nearly normal. Upon examination a depressed and extremely painful scar was seen about two inches above the left orbit.

Under chloroform anesthesia an omega-shaped incision was made over the upper left frontal region extending well into the parietal bone, the base of which was directed forward to received the branches of the supra-orbital and temporal arteries. The bone was exposed and chiseled through in the line of the incision. On raising the bone-flap the inner plate was found to be fractured in such a way that two large, ragged fragments of bone penetrated the dura and were embedded in the first and second left frontal convolutions. About one dram of pus was found between the scalp and depressed bone, and a large amount of grumous fluid in the cavity formed by the laceration of the cortex. The cavity was gently cleaned and packed with sterile gauze, the bone entirely removed, the dura united in part, and the wound dressed in the usual manner. No reaction followed the operation, and the patient has since been well.

As an example of an unusual result of cranial traumatism, the following case is reported:

CASE III.—A man, fifty years of age, was admitted to the City Hospital in April, 1897, in a condition of marked mental torpor, rendering it impossible to obtain any history other than that he had been injured by a fall from a hay-loft. From the house-staff of Gouverneur Hospital, where he was treated, it was learned that he had fallen a distance of about fifteen feet, striking his head and inflicting a severe scalp wound over the left parietal region. The injury was followed by symptoms of shock which soon passed off, leaving him for a time fairly rational. Later he complained of headache, became feverish and delirious, and was transferred to the City Hospital.

Upon examination a partial paralysis of the right upper extremity, chiefly in the deltoid muscle was demonstrated. He was able to move the forearm and hand slightly. His pupils were equal and reacted slightly to light and accommodation. The pulse and temperature were moderately elevated. There was slight stiffness in the muscles of the neck, but no cranial nerve paralyses and no loss of sphincter control. He was seen in consultation by Dr. Joseph Collins, who was at first unable to arrive at a diagnosis. The symptoms, however, gradually became more marked, the mental stupor deepened; the paralysis became more pronounced and extended to the right leg, and the stiffness of the neck muscles diminished. After several days of careful observation Dr. Collins made the diagnosis of pressure over the left motor area from hemorrhage or a ser-

ous exudate, and advised an exploratory operation. Under ether anesthesia a large omega shaped bone-and-skin flap was raised. When the dura was incised there was a gush of about three ounces of comparatively clear fluid, leaving a large space between the dura and cortex. Upon further examination it was found that the depression in the cortex was limited and was apparently caused by the pressure of the fluid; it appeared as a circumscribed concave depression, the center of which was fully one inch from the overlying dura. The forefinger was introduced between the dura and pia, but no limiting adhesions were detected. The dura was partly sutured, a small gauze drain introduced, the bone-flap replaced, and the wound dressed in the usual manner. No systemic reaction followed the operation, but the patient's symptoms failed to show improvement. His coma deepened and he died five days later. Upon autopsy the wound was found to be free from infection. The brain and meninges presented nothing abnormal other than marked saucer-like depression over the middle and lower Rolandic area.

The propriety of exploratory operations in cases of traumatic and focal epilepsy has been extensively discussed, and a large number of operations have been performed, generally with disappointing results. The consensus of opinion among neurologists and surgeons at present seems to be that such operations are indicated only in recent cases, within one year after the injury, in cases in which general epilepsy has followed, and in cases in which the attacks are of a purely focal or Jacksonian type, especially if an injury has preceded and corresponds to the motor center presiding over the muscles which are the seat of convulsive movements. The reason that the operation does not give permanent relief in cases of long duration is explained by the theory that the epileptic habit has become established, or that cortical degeneration has taken place which relief of the superficial irritation does not remove. In these cases extensive cortical excisions have been suggested but as yet the number of cases in which this has been done has been too small to give any positive results.

I have selected three from my eight cases of epilepsy which may serve to illustrate these statements:

CASE I. *Old Traumatic Epilepsy.* — A man, twenty-six years of age, had sustained an injury five years before resulting in a marked depression of the skull near the upper anterior angle of the left parietal bone. Previous to this he had enjoyed perfect health. Following the injury, however, epileptoid convulsions had occurred and increased in frequency to such an extent as to render him a hopeless invalid. As the convulsions frequently began by violent lateral movements of the head to the right, and as the seat of the injury was over the posterior extremity of the first left frontal convolution, by the advice of Dr. E. D. Fisher, attending neurologist to the hospital, who saw the patient in consultation, an operation was undertaken. A large omega-shaped incision was made over the motor area, extending to the posterior margin of the depression. The bone, still adherent to the soft parts, was chiseled through and broken off in the usual manner. At the point of greatest depression of the inner plate of the skull the dura was found to be firmly adherent and thickened. This was separated and the depressed bone removed by rongeur forceps. The dura was then opened by a semicircular incision and the motor tract exposed. Nothing abnormal was found. The arm and face centers were verified by electrical stimulation applied directly to this region by Dr. Fisher. The dura was united by fine catgut, the bone replaced, and the soft parts sutured A sterilized gauze and cotton dressing was applied. The recovery was uneventful. The wound was dressed on the fourth day, and half the cutaneous sutures removed, and again on the fourteenth day, when the entire wound was found to have united by first intention.

Although the fits ceased entirely for several weeks, they recurred finally, though with less frequency. A recent report from Dr. Spratling of the Craig Colony, where he was afterward sent, states that his condition was practically the same as before operation.

CASE II.—*Recent Traumatic Epilepsy.*—A lad, eighteen years of age, was admitted to the hospital suffering from epilepsy of several months' standing, following an injury to the right side of the head which resulted in a well-marked area of depression over the anterior and upper portion of the right parietal bone. The symptom which at first began as an occasional attack of Jacksonian epilepsy of the left arm and hand, had become more frequent, had changed from a mild local to a severe general type, and practically precluded the possibility of any regular employment. As the symptoms were distinctly focal at first, and as the duration was less than one year, the case was regarded as a particularly favorable one for operation. At the urgent request of the lad, therefore, after fully explaining the uncertainties of the result, an osteoplastic resection was made over the right parietal region including the area of depressed bone.

Upon raising the flap a moderate amount of depression was found to exist in the inner plate, causing a slight indentation of the dura. As there was no evidence of dural injury and no sign of an inflammatory deposit the dura was not opened. The depressed bone was removed, the flap replaced and united by silkworm-gut sutures, and the head dressed in the usual manner. No reaction followed the operation. The first dressing was made on the fifth day, when the wound was found to be perfectly united. The patient was up and about the ward in three weeks, and after a month was employed as helper in the hospital. At the time of his discharge, about six weeks after the operation, he was apparently well, having had no epileptic symptoms since operation.

CASE III. *Traumatic Epilepsy with Partial Paralysis of Arm and Leg.*—Colored boy, twenty-one years of age, was admitted to the hospital in January, 1899, suffering from frequent epileptic convulsions, beginning invariably in the right hand and arm, extending to the right leg and finally becoming general, with complete loss of consciousness. He was somewhat uncertain as to the duration of these symptoms, but insisted that they followed an injury to the left parietal region from being hit by a stone. During the previous few months he had noticed a progressive weakness in the right arm and leg. He walked with some difficulty and the grip of the right hand was extremely weak. He complained of dimness of vision, but an examination of the eyes by Dr. Straus was negative.

Although I was unable to obtain the advice of a neurologist in this case the symptoms led me to advise an exploratory operation, which was accepted by the patient after a candid statement of the uncertainties of the result. An osteoplastic resection of the skull was made over the left motor area, and the dura freely opened. A large inflammatory exudate was found between the dura and the pia, firmly uniting these two structures and extending for a considerable distance below and on each side beyond the limits of the opening in the skull. Above the upper border of this exudate the brain bulged considerably and was of a dark-bluish color. This region was explored in several directions to a depth of two or three inches with a probe director with a negative result. An attempt to separate the dura from the pia over the area of inflammatory exudate resulted in such free hemorrhage that further effort in this direction was abandoned, it being necessary to ligate one of the pial arteries by passing a ligature on a curved needle through the cortex in order to arrest the hemorrhage. After complete hemostasis had been secured the flap was replaced and sutured, the usual dressings were applied, and the patient placed in bed. No reaction followed the operation, the wound united primarily, and the patient was about in three weeks.

As it was impossible in this instance to remove the lesion but little hope was entertained of any improvement in his condition. Much to our surprise, however, a few weeks later the patient began to show some improvement in walking and in the use of his hand. The epileptic seizures, at first apparently less frequent, soon became more marked both in severity and in frequency, occurring several times during the twenty-four hours. He was seen in consultation by Drs. E. D. Fisher and Joseph Collins, both of whom advised large doses of iodid of potassium on the theory that the inflammatory exudate might be of syphilitic origin, after which if no improvement followed an extensive cortical excision might be tried. The suggestions were carefully carried out for six or eight weeks without any improvement in the epileptic symptoms. In May last he was again anesthetized, a larger bone-flap raised, the dura incised, and the entire cortical region covered by the exudate, about the size of a silver half-dollar, removed to a depth of about five-eighths of an inch. No reaction followed the operation and the wound healed by first intention. There was, however, a marked increase in the paralysis of the leg and arm. The fits continued for a few days with about the same frequency then increased to such an extent that he had forty or fifty a day. About the third week after the operation they suddenly ceased and he has since been entirely free from them. The paralysis is slowly improving and the patient expresses himself as feeling exceedingly well.[1]

I have had but one case of tumor of the brain in which operation has been performed, but as that was an extremely interesting one the history will be briefly referred to. Although this case has already been reported by Dr. Collins and myself in the *Medical Record*, May, 1897, a brief résumé of its main features may not be out of place:

The patient, a man aged twenty-six years, was admitted to the hospital in January, 1897, suffering from severe constant occipital headache, persistent vomiting, marked dizziness, and staggering gait with impairment of vision, the duration of symptoms having been about four months. He was immediately seen in consultation by Dr. Joseph Collins, who watched him closely and directed his treatment for six weeks, during which time he became progressively weaker and exhausted from constant pain and inability to retain nourishment. There was at no time any distinct cranial nerve-paralysis, anesthesia, hyperesthesia, or impairment of taste or smell.

The knee-jerks, at first present, gradually diminished and became entirely absent. There was slight ataxia of the upper extremities. The eyes presented the evidences of a double optic neuritis. At the time of operation, February 16th, it was estimated that the loss of weight had been between fifty and sixty pounds. He was practically blind, was wholly unable to sleep, and vomited from ten to twenty times during each twenty-four hours. He was also seen at this time by Drs. Peterson, Bailey, and P. C. Knapp of Boston, all of whom concurred in the diagnosis of cerebellar tumor, probably on the right side near the worm.

On February 16th, under ether anesthesia, a large omega-shaped bone-flap was raised in the right lower occipital region which, when lifted up, broke into the foramen magnum. This exposed the right hemisphere of the cerebellum, which was incised in several places and explored. A small tumor about the size of a hazelnut was found 1¼ inches from the surface near the median line. This was removed in three fragments by means of the finger and a sharp spoon. The lacerated cerebellar tissue was cut away, a drain of sterile gauze introduced, and the wound closed. Twice during the operation it was necessary to infuse a large amount of normal salt solution into the median cephalic vein to prevent col-

[1] During the six months which have now elapsed since the last operation, the patient has had but six convulsions, and is in excellent general health.

lapse. Active stimulation by means of rectal enemas of hot coffee, and strychnin hypodermically was also necessary.

Every untoward symptom ceased after his removal from the table. As soon as the effects of the anesthetic passed off he took and retained food in abundance, his headache disappeared, his eyesight was restored, and he gained rapidly in weight. The wound healed primarily without infection and in a month he was up and about the ward. Two months after the operation he was exhibited at the surgical section of the Academy of Medicine, apparently in perfect health, having gained between forty and fifty pounds in weight. As microscopic examination of the growth showed it to be of a tubercular nature, however, our prognosis was a guarded one.

Shortly after his apparent perfect recovery he became ill, presented evidences of an acute tuberculous process in both lungs, and progressively increasing intracranial pressure. He failed rapidly and died during an attempt to relieve the intracranial pressure by reopening the skull. Autopsy showed an acute miliary tuberculosis of both lungs with local recurrence in the cerebellum.

I desire to refer to one other very interesting condition which may often be relieved by an intracranial operation, and that is *tic-douloureux*, a persistent and progressively increasing trifacial neuralgia. As is well known, the disease frequently resists every method of medical treatment and recurs after division and even excision of the nerve trunks, producing the most intolerable suffering, often resulting in the morphin habit or even suicide. Complete relief in these cases can only be obtained by a removal of the Gasserian ganglion and the intracranial portion of the three nerve trunks by the ingenious operation first suggested to the profession by Hartley.

I have recently operated in a case of this kind, with what at present seems to be a satisfactory result. The patient, a Swede, fifty-six years of age, has complained of pain over the areas supplied by the fifth cranial nerve of the right side for some eight years. At first the attacks of pain occurred at infrequent intervals, and although severe were tolerable. Gradually, however, they became more frequent and severe and so interfered with his work that he became discouraged and, experiencing no relief from the various methods of medicinal treatment, at last became insane and was committed to an asylum. Here, under careful observation and treatment for a number of months he improved somewhat and as his mental symptoms were relieved he was discharged. Shortly afterward the pain became so severe as to be unbearable, and he was admitted to the service of Dr. Joseph Collins at the City Hospital. After careful observation and a thorough test of the strychnin treatment, Dr. Collins made a diagnosis of disease of the ganglion and advised an intracranial operation.

On May 20th, under chloroform anesthesia, an incision was made down to the bone, beginning at the outer angle of the orbit, and extending upward, backward and downward to a point just in front of the tragus of the ear, forming an omega-shaped flap about three inches in diameter. The bone was chiseled through, broken off just above the zygoma, and the flap, composed of skin, temporal muscle and bone turned downward over the cheek. This opened the middle fossa of the skull. The dura was then carefully separated from the base of the skull until the foramen spinosum was reached, and the middle meningeal artery and vein secured and cut off; the dura was then further separated from the bone toward the median line until the foramen rotundum was reached and the second or superior maxillary division of the nerve recognized. The foramen ovale was then found and each division separated from its thin dura sheath, and followed backward to the ganglion, which was then exposed. This dissection required nearly an hour for its accomplishment, owing to the very free hemorrhage which resulted from a slipping of the ligature on the middle meningeal vessels, from the small meningeal artery which could not be secured, owing to its situation at the deepest portion of the wound, and from a large meningeal vein which opened into the cavernous sinus and which was wounded in attempting to remove the dural sheath from one of the divisions of the nerve.

After many experiments in different methods of packing, the second division was raised on a blunt-hook and divided at the entrance of the foramen; the third division had to be divided by the sense of touch as it was found after many attempts to be impossible to keep the blood from the field long enough to permit the procedure to be carried out under the eye. The two free nerve ends were firmly secured in two artery clamps and torn from the first division backward to the ganglion and removed with as much of the ganglion as remained attached to them. The remaining portion of the ganglion was removed by forceps and the sharp spoon. All hemorrhage ceased as soon as the ganglion was removed; the cavity was irrigated with hot salt solution, a small gauze wick introduced, the flap replaced, secured with silkworm-gut sutures, and a sterile gauze dressing applied. As the hemorrhage had been severe the patient was next given 1½ quarts of normal hot salt solution by the median cephalic vein before leaving the table. Practically no reaction followed the operation. His pulse and temperature remained below 100. The wound united by first intention and the patient was up and about the ward

in ten days. The eye was irrigated every day with warm boric acid solution and kept closed under an aseptic gauze dressing for four weeks, after which the patient wore smoked-glass goggles. No inflammatory symptoms appeared in the eye, and the only discomfort complained of by the patient was the numbness of that side of the face and the general physical discomfort following the discontinuance of his morphin. It is now about six weeks since the operation and the man expresses himself as very grateful and entirely free from pain.

Before closing I desire to say a few words in regard to the technic of the operations. When possible the patient's head is shaved two days before the operation, after which the position of the Sylvian and Rolandic fissures are marked out by needle scratches; these, with Reid's base-line give landmarks enabling the operator to locate any of the known cerebral centers, the chief blood-vessels, sinuses, and dural processes. The head is then scrubbed with green soap and hot water for two minutes, and a soap poultice applied for at least four hours. The head is then rescrubbed for ten minutes by the nurse, whose hands have been previously sterilized, a sterilized brush and sterile liquid soap being used after which a wet 1 to 5000 bichlorid-of-mercury dressing is applied. This is removed when the patient is on the operating-table and the wound area rescrubbed for one minute, then douched with alcohol, ether, and sterile water, and surrounded by sterile towels. The operator and all assistants are clothed in sterilized gowns and caps. The assistant administering the anesthetic prepares himself in the same manner as those participating in the operation and during the operation uses a sterile chloroform mask. Sterilized rubber gloves are worn by the operator, his assistants, and the operating-room nurse. When possible the osteoplastic or bone-flap operation is performed for the reason that it does not leave a bony defect in the skull.

When the dura is opened the surgeon must remember that he has opened one of the closed serous cavities of the body, and that the danger of infection from any error of technic is as great as in the case of the peritoneum, the pleura, or the synovial sacs, and that an infection here is with great difficulty controlled and leads almost invariably to a fatal result.

If in doubt in regard to the perfection of the technic it is better to drain for twenty-four hours with sterile gauze. Another fact to be remembered is that irrigation of a wound in which the cerebral cortex is exposed with a hot salt solution (115° to 120° F.) has often a marked stimulating effect on the heart.

THE GOVERNMENT SANATORIUM FOR CONSUMPTIVE SOLDIERS OF THE UNITED STATES ARMY.

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A SANATORIUM for the treatment of officers and enlisted men of the United States Army, who are suffering from pulmonary tuberculosis, has been recently established by order of the Secretary of War at Fort Bayard, New Mexico. The commanding officer, Major D. M. Appel, Surg. U. S. A., is a man having a special knowledge of tuberculosis, and modern sanatorium methods, and is planning to follow closely the lines of treatment laid down by Dr. E. L. Trudeau at the Saranac Lake Sanatorium.

Although some patients in an advanced stage have been transferred from other military hospitals, so as to avoid the possibility of spreading infection there, yet this sanatorium is designed to meet the needs of those that can be benefited, rather than of hopeless cases. To this end, patients with mixed infection will be carefully separated from pure tuberculous types, and again, convalescents, those free from the bacillus, will be separated from all other patients, and all inmates of the hospital will be obliged to conform to the set of printed rules of which a copy is here given.

INSTRUCTIONS FOR PATIENTS.

Consumption is an infectious disease: it is caused by a germ which is contained in the sputum. For this reason it is necessary that the greatest care be exercised in the disposal of expectoration. Should it be allowed to dry and in the form of dust float around in the air, millions of these germs would be liberated, a grave danger not only to those free from the disease, but also to you, oftentimes undoing in one day the good that has been accomplished by months of care.

Expectorate ONLY in your spitcup, NEVER upon the floor, in the bath-tubs, sinks, or closets, or in your pocket-handkerchiefs. Carry your spitcup with you everywhere, expectorate into it carefully, avoid having to wipe sputum from your lips, whiskers, or from the edges or side of your cup. The only safe method of disposal of sputum is by burning it. Your cups should be burned as soon as half filled and never use one cup for more than twenty-four hours. The metal frames should be washed often with carbolic solution.

Should you, by accident expectorate upon the floor or bedclothes or spill your cup, tell the nurse at once and he will use the necessary disinfectants.

Fresh air and sunlight, rest and good food are necessary. Stay out doors as much as possible, go to bed early, take moderate exercise, eat your meals slowly and masticate your food thoroughly. Do not help yourself to food from dishes with your own fork or spoon; use those provided for that purpose.

Try to refrain from coughing at meal times; with

care you can do much to prevent it. The use of stimulants and of cigarettes is forbidden, smoking and chewing tobacco, in moderation, is permitted when out doors or in the recreation-room.

Whiskers and moustaches, if worn, must be closely trimmed.

PATIENTS NOT BEDRIDDEN WILL OBSERVE THE FOLLOWING RULES:

1. They will occupy their quarters only from 7.30 P.M. until 8 A.M.
2. They must make their own beds and arrange their personal belongings neatly.
3. They must remain outdoors at least eight hours daily.
4. They will not visit in quarters.
5. They will bathe at least once a week.
6. They will not, without special permission, go south of the Administration building.
7. Meals will be served only in the mess-hall.

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Fort Bayard, itself, is a rather old post for New Mexico, dating from 1867, and in view of its abandonment, which has been discussed for some time, it has been permitted to run down, with the exception of absolutely necessary repairs. In consequence but few of the buildings are adapted to the purposes of the sanatorium, and of course, must be replaced by modern structures as soon as possible.

The climate is a subject upon which one might enlarge indefinitely. From the standpoint of physical comfort it is almost ideal and for a sanatorium the climate as well as the location can hardly be excelled.

Fort Bayard lies in a sheltered valley—from it one can plainly see the mountains of old Mexico, more than sixty miles away. They are a never changing hazy blue, only a shade deeper than the sky, which day after day is the same cloudless blue. The perfect clearness of the atmosphere is accompanied by the frequent phenomena of mirage. Down the valley, and a few miles from the post, the plain is apparently dotted with lakes of all shapes and sizes, but the carcasses of cattle dead for lack of water prove that Nature is simply painting pictures on the horizon.

Looking east, and about five miles away, one sees the low, rocky Santa Rita mountains, the cliffs of which were carved and chisled by the hand of man centuries ago. The most prominent landmark of the range is the Kneeling Nun of Santa Rita, a rock visible for miles in nearly all directions, representing the figure of a nun kneeling before a cliff which serves as an altar. Toward the west and about sixteen miles distant are the mountains at the foot of which lies Silver City, while to the north there is still another range. These mountainous surroundings shelter Fort Bayard in part, at least, from the fierce winds which are prevalent during the spring months and constitute the only climatic drawbacks. These winds sweep from ocean to ocean at this latitude, and raise the sand and dust so that sometimes it is not possible to see a building twenty feet away. Such storms are, of course, exceedingly irritating, but fortunately they only prevail for a short time.

At Albuquerque they occasionally use snow-shovels to remove the sand and dust from the walks after an unusually severe storm. So it can be readily appreciated why Fort Bayard is proud of its sheltered situation, though even here, to be more honest than is common in the writer of climatic articles, the dust storms are bad enough.

Vegetation is scant, were it otherwise different conditions would prevail and the consumptives would be obliged to seek another Mecca. What little growth there is has a stunted, burned up, very thirsty appearance. There is a characteristic desert flora and fauna, though by all odds geology is the science that most abounds, particularly that branch which deals with volcanic rocks. Fort Bayard is too high, and therefore almost too cold, for the comfort of those destructive reptiles of New Mexico, rattlesnakes, tarantulas, scorpions, centipedes, and Gila monsters. While they are not wholly absent, they are not very abundant. The three elements latitude, altitude, and humidity in combination, make the climate what it is and contributes to the climate a very high sun temperature in summer and a relatively high sun temperature in winter. From this comes the saying that its always warm in the sun.

The altitude, 6040 feet, causes rapid evaporation and at this height constant motion of the air is a feature of the climate. The altitude, consequently, modifies the sun's heat at all seasons, shortens the growing seasons and lengthens the winter. The great dryness of this region, more than all other elements combined, determine the peculiar climatic features. It aids the altitude in still further increasing the rapidity of evaporation, and then to make a very hot day apparently cool. As dry air has a very limited capacity for retaining heat the result is a great and sudden drop of temperature as soon as the sun goes down or upon going from sunshine to shade. The practical application is, of course, that one can always be cool in summer by remaining in the shade, warm in winter by staying in the sun. This explains why one must always sleep under blankets even in August. At Christmas time it is common to see men working out of doors without coats or vests when in the sun, but it is almost

comical to see the rush for outer garments when the sun begins to go down. Again, the evaporation is so very rapid that visible perspiration is uncommon except upon really violent exertion. Even during the rainy season it seldom rains, the total rainfall being less than 15 inches a year.

The dryness is further impressed upon the visitors to southern New Mexico by the the temptation to moisten the lips—which, if persisted in, causes them to become cracked and sore.

From a sanatorium point of view the advantages of the climate are briefly as follows:

Sufficient altitude to act as a general, and, especially, as a blood, tonic, vastly increasing the number of red corpuscles and amount of hemoglobin.

The dryness not only aids altitude in providing a relatively aseptic atmosphere, but it has in itself a distinctly beneficial effect in pulmonary tuberculosis which, though empiric, is none the less well established.

The small rainfall and cloudless skies permit daily life in the open air which is *per se* the most important *desideratum* in the management.

Climatologic therapeutics has not yet reached an epoch which makes it possible to successfully select the particular climates, altitudes, etc., that will give the maximum benefit to any patient. Only trial will demonstrate the individual's adaptibility to a climate.

All sorts of patients may do well in all sorts of climates, meaning, of course, slight variations due to differences in altitude and local influences of practically the same general climate (Eastern Colorado, New Mexico, Arizona, and Northwestern Texas). On the other hand all sorts of cases may do badly in all sorts of climates.

The question of suitable altitude is very simple. Patients with advanced disease should begin at a low altitude and ascend gradually, particularly if there is present a hemorrhagic tendency, arteriosclerosis, or heart complications. But as high altitude is a therapuetic agent in pulmonary tuberculosis whether, complicated by sepsis or not, patients should continue to ascend up to 6000 or 7000 feet as long as they feel comfortable; and when there is not sufficient lung surface for adequate aeration of the blood Nature herself will call a halt.

Patients in advanced stages of the disease on first arriving here generally have suffered, in addition to exhaustion, from dyspnea but without exception they soon began to feel better than they did in the East, the only difference being that there they were in the habit of getting about more, while here they were content to sit on the verandas all day, and retire with the sun. The danger supposed to threaten patients advanced in the disease at such a high altitude, was not apparent, neither has it been observed that the effect of tea, coffee, and tobacco was deleterious to those that indulged, in spite of the opinion to the contrary of some who advocate lower altitudes.

In regard to the relative differences between Colorado, Northwestern Texas, New Mexico, and Arizona, where the altitude and latitude are equal, the climate of the last three is practically the same. Colorado is relatively dry, as is well-known, but wet compared with the others. It is also much colder and subject to greater extremes of temperature, Colorado is much the best place for the poor "lunger" because necessities are cheaper and the chances of getting suitable employment are better. The wealthy patient can get what he requires almost anywhere. In Mexico and Arizona an invalid cannot live comfortably for less than $3.00 per day.

Those in a position to form an unbiased opinion agree that portions of New Mexico and Arizona furnish the ideal climatic environment for consumptives. And from this point of view Colorado occupies an entirely secondary position. But, on the other hand, luxuries and comforts, as well as congenial society are found almost everywhere in Colorado. While further south the necessities, to say nothing of the luxuries of invalidism, are beyond the reach of the poor man. Colorado with its wonderful climate is good, but the desert of the Southwest is better from a climatic point of view, and when it becomes the recognized sanatorium of the United States, as it is bound to do in a short time, many of the drawbacks and discomforts will be eliminated.

In a high altitude secretion and excretion are all augmented, metabolism in general becomes a more perfect part of life's mechanism. The dyspeptic, the neurasthenic, the rheumatic, the consumptive, the gouty, are nearly all benefited. Therefore, a high altitude, not 2000 feet—but 5000 to 7000 feet or just as high as a patient can live in comfortably, is to be generally recommended.

A word as to transportation: nearly all the places frequented by invalids in the Southwest are on the great continental trunk lines (Santa Fé and Southern Pacific). The majority are on the Santa Fé where the passenger accommodations are very excellent.

The Harvey Restaurants are the salvation of many a poor lunger in this country. One thing, however, must be remembered: the prices, though reasonable enough considering the distance everything must come, are, in fact, strictly on the Delmonico scale.

All medical men appreciate the importance of a proper mental state on the part of the patient in aid-

ing recovery from any disease, and so it may be said positively that if a consumptive must come West to worry and be homesick he would better remain at home. There is no country on earth, with the possible exception of the North Pole, that can compete with the great Southwest for endemic nostalgia. If worry be added to homesickness the case is hopeless. Therefore, the immigration of the wife and family with the invalid husband and father or the mother with the invalid son or daughters is a potent factor in recovery, for mental peace and hopefulness are fully as important as a suitable climate for the recovery of tuberculosis patients.

EMPYEMA IN INFANTS.

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EMPYEMA in children is a familiar topic, but if we consult the reports or articles upon this subject we find that few of the cases occur in children less than three years of age, while those belonging to the age of infancy (under two years) are rarer still. It is the desire of the writer to direct attention to the frequency of the occurrence of empyema during the first two years of life, and to certain of the clinical features that belong to the disease during that period.

In the pathological records of the New York Foundling Hospital in the last ten years we find a total of 82 cases of empyema. Of these, 69 were under two years of age, only 13 were beyond that age. These figures may serve to indicate the gravity of this affection during the earlier period. Of these 69 cases, 42 occurred in boys, and 27 in girls. As to the distribution, the right side was involved in 28 patients, the left in 24, both sides in 17. The frequency of this involvement of both sides serves, in part, to account for the high mortality. Furthermore, we find that in one case there was a complicating meningitis, in another an acute peritonitis, while in six cases acute pericarditis had helped to produce a fatal termination. Finally, in forty-one cases there was more or less pneumonia present. The character of the pulmonary involvement varied considerably, some of the cases showed a diffuse pneumonia involving one or more lobes; others only scattered areas of broad pneumonia, while in a third class the consolidation was found only in the superficial portion of the lung which was in contact with the purulent effusion. In the first two classes it is generally agreed that the empyema is secondary to the pulmonary affection, while in the last class it is an open question. Attention would be particularly called to the fact that we have still left a total of twenty-eight patients in which there was not any involvement of the lungs found. Objection may be urged that it would not be safe to conclude that because pneumonia was not found at autopsy there had not been any during life. Such objection would certainly hold good for the cases seen in children of greater age or in adults, since in such cases weeks may intervene between the onset of pulmonary symptoms and the discovery of empyema, but in infants the clinical course is so short that doubtless the conditions found at autopsy quite fairly represent the conditions during life. Special attention is directed to this point because it is generally accepted that pneumonia of some form is regularly the precursor of empyema in children.

The records show that in 1 case the empyema was secondary to a general tuberculosis, in 1 to pertussis, in 1 to gangrenous dermatitis, in 2 to enterocolitis, in 2 to diphtheria, in 2 to erysipelas, and in 5 to measles. The data on this point are not complete, and this summary is given for the sake of indicating the variety of the diseases in which empyema may occur as a complication. The absence of scarlet fever from our list is probably accounted for by the rarity of this disease among infants

There is one form of empyema which is, in our experience, peculiar to the early years of life. Sometimes it is designated in the records as pleuropneumonia, sometimes empyema, the designation apparently depending upon the stage of the disease met with at autopsy. In the early cases we find one or more lobes of one or both lungs presenting a fairly typical lobar consolidation, while the pleura overlying the affected lung is thickened, whitish in color, more or less opaque, and coated with a greenish-white or yellow exudate sometimes measuring half an inch in thickness. Usually the parietal pleura is similarly thickened. The pleural cavity may contain only a dram or two of clear serum. Under the microscope the pleural exudate is seen to consist of fibrin and pus. At a later stage the pleural exudate is found in a state of disintegration, and the fluid present in the pleural cavity is thin pus. It is not uncommon to find the pleural contents so thick that they will not flow, but they can be readily scooped out in great masses. It is this type of the affection that is likely to be complicated by pericarditis, meningitis, or peritonitis.

In the majority of cases the purulent effusion is found in the posterior and lower portion of the pleura, but in some of the cases it was noted that the pus was sacculated anteriorly even at the apex of the lung. In whatever situation the pus is found

it is not uncommon for the effusion to be so shut in by adhesions that changes in the position of the body would have little or no influence upon the level of the fluid.

The character of the fluid found varies greatly. Sometimes it is thin and watery; much more often it is thick and creamy. The color is red, reddish-brown, green, greenish-yellow, or yellow. It is, of course, turbid or opaque, and under the microscope shows pus-cells. In none of our cases was it foul-smelling.

The clinical features of empyema in infants are quite as interesting as the pathological findings. In the Foundling Hospital it is generally admitted that there is no disease in which error in diagnosis is so frequently made, the error consisting in failure to suspect and to demonstrate the presence of pus in the pleural cavity. Hardly an interne passes through his year's service without scoring one or more such failures. One frank graduate recently said that just as he was about to leave the hospital at the very conclusion of his service he went to see an autopsy upon a case which he had followed for four days without a doubt that it was pneumonia, only to find a chest full of pus! The explanation of these failures lies partly in the difficulty of diagnosis of any pulmonary condition in an infant. The small size of the chest, the close relation of the lung on one side to the solid liver, on the other to the hollow stomach; the difficulty of securing a quiet examination, the inability to secure the assistance of the patient in the study of the voice and breathing all serve to lesson the information we may gain from physical examination and obscure the interpretation of its results. The frequent presence of pneumonia with empyema likewise adds difficulty to the situation.

But, finally, it seems that the chief cause of our errors is that we come to the study of these cases with the clinical picture of empyema as it occurs in adults so fixed in our minds that we cannot break away from it. We think of empyema as an affection that develops, as a rule, only after a definite pneumonia and in the course of several weeks. We expect to have time to study the case, note the character of the temperature, the occurrence of profuse perspiration, etc., and, if fluid is present, to watch its gradual rise. We have to learn that the clinical course of empyema in infants is short and critical. Our records show that some of the cases die within forty-eight hours after invasion; that the greater number of these sixty-nine cases have proved fatal within a week; that few of them have lived longer than two weeks. We may fairly say that in empyema in infants we have to do with days, where we have weeks or months in the case of adults.

Moreover, the rational signs of empyema in infants are inseparable from those of pneumonia. This holds true whether or not pneumonia precedes or accompanies the development of empyema. We have the same fever, restlessness, rapid pulse, and respiration; the same dilatation of the alæ nasi, cough, and perhaps the expiratory grunt upon which emphasis is often laid in the diagnosis of pneumonia. In short, rational signs are of no help in the matter of differential diagnosis.

Physical signs are of little more assistance. Inspection in an infant will only show an immobility of the affected side common to both pneumonia and empyema. Percussion, if it gives flatness over any part of the lung, should lead us to suspect fluid, but cannot demonstrate its presence. Diminution of the voice and breathing sounds should confirm the suspicion. Bronchial voice and breathing are often heard over pleural effusions in infants, but if so they are usually of a distinct character that is at least suggestive. Palpation may give absence of vocal fremitus, but this is difficult of determination on the small thorax. Displacement of the heart is a reliable sign if it can be demonstrated. It is naturally most likely to be found with left sided effusions, but at the age of which we are speaking it is rarely of decisive help. The physical signs have been gone over in this way only to give point to the repetition of the fact that no one sign or set of signs can be relied upon to settle the question. Marked dulness or flatness over any part of the lung, particularly if it be associated with diminution of the voice and breathing sounds or displacement of the heart, should suggest fluid, and call for the use of the exploring needle.

In view of what has been said on the character of the effusion in these cases, the absurdity of using a hypodermic needle for exploration is apparent. A large needle is a necessity. One approaching the size of the lead in a lead-pencil is best. A needle about an inch and a half in length can he handled with much more ease and certainty than the long ones so much in vogue. Such a length is quite sufficient to penetrate the thorax of a child and reach pus if present. The terms fluid and pus have been used interchangeably simply because if fluid is present in these cases it is almost always pus. In the class of cases referred to as sometimes called pleuro-pneumonia we may draw off a clear serum. A day or two later the same case will show pus. The site of the exploratory puncture is determined by the situation of the dulness or flatness. If necessary, the puncture should be repeated in several places and on

successive days. In the early stages of a thick purulent exudate no aspirating needle would show the character of the effusion.

Once pus is found there is a clear indication for drainage. The removal of the pus by aspiration is sometimes resorted to for temporary relief, but this procedure cannot be relied upon as a method of treatment. Permanent drainage must be established. In infants this is satisfactorily accomplished by making a simple incision in an intercostal space, and inserting two drainage-tubes side by side as large as the space will admit. The site of the incision must be determined by the site of the effusion. Our autopsies show that incisions either located behind and and below the angle of the scapula or in the axilla, either anteriorily or posteriorly, drain the pleural cavity thoroughly. The time for the removal of the tubes must be determined by the subsidence of the discharge. In infants it is possible to remove the tubes much earlier than in adults. The tubes must be secured from slipping into the cavity of the pleura by passing a safety-pin through the outer edge. They should be covered by an abundant dressing of sterile gauze and cotton.

In cases that progress favorably there is usually no difficulty in the expansion of the lung. Apart from drainage the treatment must be simply aimed to support the strength of the child. To summarize the points it is desired to emphasize:

1. Empyema is not uncommon in the first two years of life, and even in the early months. Of the 69 fatal cases on our records 11 occurred in children under six months of age, 40 occurred in children between six months and one year, and 18 occurred in children between one and two years. The youngest patient was two months and nineteen days old.

2. The mortality during this period is very high.

3. Empyema in infants is very frequently mistaken for pneumonia.

4. The rational signs are the same as those of pneumonia in children.

5. The physical signs cannot be relied upon for diagnosis.

6. Exploration is called for in every case in which, with the rational signs of pulmonary disease, we find marked dulness or flatness over any part of the lung, especially if accompanied by diminution or absence of voice and breathing or displacement of the heart.

7. That exploration should be made with a large needle and repeated if necessary. None of our cases has ever shown harm from the use of the needle: many have been missed by reason of failure to use it.

8. Practically all pleural effusions in infancy are either purulent from the beginning or soon become so.

9. When pus is found drainage is called for. Incision in an intercostal space with the insertion of drainage-tubes answers this end thoroughly.

126 WEST FIFTY-EIGHTH STREET.

CLINICAL LECTURE.

SURGICAL CLINIC OF PROFESSOR SENN.[1]

CASE I. *Sarcoma of the Nasopharyngeal Space.*—Mr. W., aged forty-three. No venereal history. Nine months previously he was supposed to have caught a cold in the head. He suffered from difficult breathing due to stenosis of the right nostril. Four months ago he could only breathe through the mouth as there was complete nasal occlusion. At this time a large swelling was noticed in the nasopharyngeal space. There was marked dysphagia. The recumbent position caused a sensation of cerebral congestion. Two months later portions of a tumor were removed through the nose, which greatly aggravated the existing conditions.

Operation.—Preliminary ligation of right common carotid artery was performed because the disease was more extensive on that side. An incision four inches in length along the anterior border of the sternocleidomastoid muscle was made extending through the skin and superficial fascia; then blunt dissection until the sheath was reached, which was opened widely, freely exposing its contents; thus obviating the possibility of including important contiguous structures in the ligature. After introducing double ligatures of catgut, traction was made on the artery by means of the ligatures as a secondary pracaution in liberating the artery. Following this they were tied a quarter of an inch apart. The patient who had been fully anesthetized was now allowed to become semi-conscious. A guy rope of silk was next passed through the tip of the tongue. The soft palate was divided into two lateral halves by means of the broad blade of the Paquelin cautery, thus exposing the tumor mass which was removed piece-meal, largely with the use of blunt instruments. Profuse hemorrhage, which in spite of precautions, caused the patient to become asphyxiated several times, necessitated a delay in the operation until the patient revived. The tumor extended far back to the base of the skull. The soft palate was excised with scissors and the bed of the tumor was thoroughly cauterized. The nasal fossa and the nasopharyngeal spaces were lightly tamponed with iodoform gauze. One week later all the symptoms of difficult breathing, pain, and cerebral congestion had disappeared.

CASE II. *Recurrent Carcinoma of Tongue.*—Mr. S., aged fifty. Prussian, married. The patient had been an inveterate smoker for years. Three years previously a fissure appeared on the upper surface of the tongue near its tip, which, five months ago was subjected to partial excision. Three months later there was a reappearance

[1] Held at Rush Medical College, Chicago, Tuesday November 28, 1899. Reported by Emanuel J. Senn, M.D., Associate in Surgery, Rush Medical College.

of the disease in the old scar with greatly enlarged lymphatics,

Operation.—Partial anesthesia. A semilunar incision on right side of neck with convexity downward extending from the symphysis mentis to the mastoid process was made which was joined by an incision extending downward along the anterior border of the sternocleidomastoid muscle. An enlarged gland behind the sternocleidomastoid muscle and a chain of glands around the great vessels of the neck were removed. Later the mouth was opened according to Kocher's method and by careful dissection one-half of the floor of the mouth was removed *en masse*, with some enlarged submental glands. The tongue, by means of a silk loop passed through the tip was brought through the opening in the floor of the mouth and was amputated at its base. The cut lingual arteries were promptly caught and ligated. The two flaps at the base of the tongue were sutured with catgut, the large wound packed with gauze, and the skin-flap sutured in position; tubular drainage. The stump of the tongue was transfixed with a silk ligature, which was brought through the mouth and fastened to a support which was incorporated in a plaster-of-Paris cap, in order to guard against falling backward of the stump. One week later the patient was in excellent condition; in spite of the absence of the tongue, he was able to articulate, and could talk almost as well as before the operation.

CASE III. *Pyonephrosis and Nephrolithiasis.*—Mrs. S., twenty-seven years of age, married five years. Four years previously, at birth of first child, she was repeatedly catheterized. Pain in bladder and right renal region followed and she experienced a sensation as if an object were in the kidney attempting to escape. Two years ago nephrectomy was performed and a calculus is said to have been removed. The fistula closed seven weeks later but no improvement was noticed after the operation, and the patient had renal colic at repeated intervals.

Operation.—Simon's incision, extending from the twelfth rib to the crest of the ilium was made. The capsule of the kidney was found adherent by reason of the previous operation. The kidney was hard and did not give any sense of fluctuation. Exploratory puncture revealed urine heavily loaded with pus. The needle of the syringe was left *in situ* to use as a guide. Pelvis of kidney was opened by means of Paquelin cautery. Digital exploration of the pelvis and calices. In the deep portion of the wound, the finger came in contact with a soft stone embedded in a calyx near the uretal orifice. This could not be removed entire on account of its location and its fragility. Its removal was with difficulty effected by means of a dull curette. The wound was irrigated and the renal wound enlarged by means of the cautery, nearly dividing the kidney in two halves. This secured requisite drainage and free exposure of all the calices. Drainage was made by means of three large rubber tubes.

CASE IV. *Traumatic Epiphyseolysis of the Femur.*—Annie, aged thirteen. Eleven weeks before, the patient fell from a height, sustaining an injury in the neighborhood of the knee-joint. This had been previously diagnosed as a fracture or dislocation. There was shortening of the leg two and a half inches, with projection of lower fragment in an outward and backward direction. Paralysis of limb below the seat of injury was present and a radiograph showed a large callus in connection with lower fragment. An incision on the outer aspect of the limb in a line with the intermuscular septum revealed an epiphyseolysis of the lower extremity of the femur. Traction was of no avail in the mobilization of the lower fragment and was attended by considerable hemorrhage. A disk of bone was removed by the saw from the upper fragment, after which the two fragments could be brought in coaptation. Suturing of wound, drainage, and large dressing, plaster of Paris, and fenestrated fixation splint completed the operation. Four hours after operation the temperature reached 104° F. This continued with some variation for two days when the dressing was changed and a considerable amount of bloody serum escaped, after which the temperature returned in a few hours to nearly normal.

CASE V. *Backward Dislocation of Elbow-joint.*—Mr. W., young adult. The injury occurred five weeks previously. There was swelling of elbow-joint and the arm was in extension which could not be overcome. Marked prominence of olecranon process was present. The diagnosis of backward dislocation was confirmed by skiagraph. The patient was placed under the influence of ether and a bloodless reduction was made by careful forced flexion of the forearm, extension and counter extension. Traction was made by means of a bandage passed around the elbow with a clove hitch at the wrist. Through slight manipulation reduction was readily made, not, however, without causing a fracture of the tip of the olecranon.

CASE VI. *Tuberculosis of the Metatarsophalangeal Joint of the Little Toe.*—Mrs. V., aged thirty-one. One sister died from phthisis. Six months previously the patient had tuberculous peritonitis which subsided after one tapping and injection of iodoform glycerin emulsion. One year ago a fluctuating abscess appeared on the outer side of the little toe. This was tapped and injected with iodoform emulsion. As a fistulous opening appeared, which persisted to the present time, amputation of the entire toe and metatarsal bone except its proximal head was performed.

CASE VII. *Epithelioma of the Lower Lip.*—Mr. S., aged fifty-one. The disease began as a papule on the lower lip three months previously, situated slightly to the middle line. Later an ulcer about the size of a dime developed. The submental glands were not enlarged. Operation was done without an anesthetic a V-shaped incision being made. Hemorrhage was controlled by digital compression. The apex of the incision was carried down to the lower border of the jaw in order to prevent both the possibility of leaving diseased lymphatics and to secure a more gradual convergence of the margins of the wound whereby a more perfect cosmetic result is secured. The incision in the mucous membrane of the mouth was sutured separately with catgut. The external wound was closed with a few silkworm tension sutures and with horsehair coaptation sutures. The external wound was

sealed with collodion iodoform gauze and was then covered with cotton.

CLINICAL MEMORANDUM.

A SIMPLE METHOD FOR THE TREATMENT OF INGROWING NAILS.—A CLINICAL SUGGESTION.

By GERALD B. WEBB, M.D.,
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HAVING tried all methods of treatment, and having been obliged at times to resort to partial excision under cocain, I one day had to treat an obstinate case of ingrowing finger-nails due to improper manicuring. It then struck me that there should be some method of cure, especially for stubborn cases, that would leave no deformity, and I hit on the idea of using silver wire, as represented in the diagram.

For toe-nails I have used it about the thickness of an ordinary pin. The wire should be annealed, and carefully bent to fit the under free surface of the nail, catching and lifting up the lateral edges as far back as the cuticle. Artery forceps will serve as pliers. The ends are carried along the dorsum of the toe and strapped down to the skin with surgical plaster. A pledget of cotton should be twisted around the points which have previously been bent away from the skin. By this means the

FIG. 1.

Illustrating Method of Treatment.

jagged edge of nail is replaced by the smooth, round, non-irritating surface of the wire, and even cases with pus quickly subside. The patient suffers no discomfort if the wire is properly molded, being able to go around as usual with his boot on, and if supplied with adhesive plaster can reapply the wire and cleanse the toe at his pleasure. The only disadvantage is the necessity of wearing the appliance until the toe-nail grows out properly, but this is unquestionably better than the sacrifice of part of the nail and subsequent deformity.

MEDICAL PROGRESS.

On the Etiology and Pathology of the Kedani Disease.—In 1892 Dr. K. Tanaka of Japan made his first observations on a peculiar malady found in that country, and which thus far has not been recognized as occurring anywhere else. In the (*Centralblatt f. Bakteriologie*, 26, p.437, October 28, 1899,) he makes some further contributions to a knowledge of this interesting disease. It is typically one of the group of the exanthemata. The attack usually comes on without premonitory symptoms with a chill and abrupt rise in temperature. The pulse is accelerated and the respiratory activity increased. In a few days the patient is severely ill. Nervous symptoms develop in a short time. On the third to seventh day the eruption occurs. It is urticarious in its general type. Swelling of the lymph-nodes occurs, the face is reddened and turgid, and the conjunctivæ markedly congested. The tongue dries rapidly, and the lungs are the seat of an active bronchitis. The spleen is increased in size. There is gradually developing anorexia and constipation. The kidneys show the lesions of an acute exudative nephritis or acute degeneration. In from ten to thirteen days death usually occurs in from forty to seventy per cent. of those affected.

The author describes a minute moth that is widely spread in the region where this disease is endemic. This moth makes a small punctured wound in the skin when it bites, which is its habit, and it is from this mode of infection that the disease originates. Tanaka believes that he has found a bacillus, a proteus, resembling the Proteus Hauseri, which is the true agent of infection. Careful search was made for some form of plasmodium as the analogy of the method of infection were so marked with that produced by the mosquito, but no such animal blood-parasite was found. A detailed description of the biological characters of the bacteruim is given with illustrations.

Analgesia of the Ulnar Nerve in Epilepsy.—LANNOIS and CARRIER (*Revue de Med.*, November, 1899) contribute a clinical study on a recently observed phenomenon, *i.e.*, analgesia of the ulnar nerve (Biernacki's sign) in the epitrochlear space, between the internal condyle of the humerus and the olecranon. As is known to all, its pressure, a classical method of rousing inebriates, is attended with sharp radiating pains accompanied by tingling of the hands and fingers. Analgesia to pressure on this nerve has been observed as a comparatively common symptom in general paresis, and also rarely in locomotor ataxia, and Biernacki has made an extended series of observations on this phenomenon. In the present inquiry Lannois and Carrier have filled out the series of investigations of Hildenberg, who found that seventy-five per cent. of 79 general paralytics showed this phenomenon. This high percentage, however, they attribute to the fact that there were 13 epileptics included, 12 of whom gave this symptom. In their studies 130 epileptics are reported on including 80 females and 50 males. Of the 80 females 40, fifty per cent., showed normal ulnar-nerve symptoms on both sides. In 11 cases, twenty-three per cent., there was diminished sensibility on both sides. Normal sensibliity of one side only was present in 9 cases, while there was complete analgesia on both sides in 14 cases, and complete analgesia on one side in 10 cases. Thus there were fifty-five per cent. normal nerves,

twenty per cent. with diminished sensibility, and twenty four per cent. with complete analgesia. In 50 male epileptics fifty-eight per cent. showed normal sensibility, twenty-eight per cent. diminished sensibility, and fourteen per cent. were analgesic. The combined figures show 56.5 per cent. normal nerves; 23.4 per cent. diminished sensibility, and twenty per cent. showed the positive Biernacki sign. These figures are much lower than the figures of Hildenberg and Foebel, and Lannois and Carrier refuse to acknowledge this symptom as one of the stigmata of epilepsy. As a helpful sign in the diagnosis of hysteria from epilepsy, however, they believe that it may have some value. It is caused, they believe, in the post-epileptic interval by the bruising of the nerve consequent to the attack.

Treatment of Acute Psychoses by Rest in Bed.—SERIEUX and FARNANIER (*Semaine Med.*, October 11, 1899) speak highly of the good which often follows the treatment of acute cerebral disorders by rest in bed. It is usually possible to persuade insane patients that on account of their fever, or as an aid to digestion, or for some other reason, it is desirable that they remain in bed. A nurse is, of course, necessary, and it is of advantage to have the room attractive. The exact physiological action of a horizontal position is not known. Certain it is that it reduces the rate of the pulse and respiration, and by slightly reducing the blood-pressure it lowers the central temperature, diminishes the destruction of the red blood-cells, and increases the weight of the body. There follows as the result of this method of treatment a lessening of the excitement and an improvement of the patient's general condition. The treatment should be supplemented by such therapeutic measures, medicinal or otherwise, as may be indicated, including massage, electricity, hydrotherapy, etc. The mental states most suitable to this form of treatment are acute febrile delirium, alcoholic delirium, morphinomania, mental confusion, delirium, alcoholic delirium of hysteria or epilepsy, and acute mania and melancholia. In chronic mental disorders rest in bed is not advisable.

Diarrhea Occurring in Tuberculosis. — PLICQUE (*La Presse Médicale*, October 7, 1899) says that diarrhea occurring in connection with tuberculosis may be due simply to an excess of fat. This often occurs in patients who suffer from tuberculosis of the joints. It may also be due to treatment by drugs, or it may be the result, most serious of all, of intestinal ulcerations. In the last stages of phthisis such is frequently the case. The diarrhea under these circumstances is usually followed by death. The only justifiable treatment of diarrhea of this type is to relieve the patient with morphin and to prevent severe colic by irrigation of the intestine with injections containing a little laudanum. Diarrhea from other causes has a greater therapeutic interest. A common mistake in treatment is to add too much fat to the diet. Saponification not taking place, unchanged fat passes through the intestines and induces a diarrhea. Under such circumstances the amount of ingested fat, whether cod-liver oil, olive oil, or even butter, should be somewhat limited. Even the yolks of eggs are sometimes injurious to a patient in this condition. Milk can usually be taken without ill effect. In every case the patient should take a long rest after eating, and should drink some hot fluid with meals, such as tea, hot wine, hot milk, etc. Another cause for diarrhea, often seen in young women, is the swallowing of the sputa. The amount of medicine ingested should be reduced to the minimum. Arsenic, the sulphates, and atropin should not be given. The phosphate of chalk and tannin may be taken with advantage. When creosote is not tolerated by the mouth it should be given by the rectum, 30 or 40 minims being mixed with an ounce of almond oil and the yolk of an egg, and shaken into a very fine emulsion with 6 ounces of water. If necessary a little gum arabic may be added to perfect the emulsion. This mixture is best injected after the patient has retired at night. Similar measures should be tried even if tuberculous enteritis is present, but the improvement will be slight under such circumstances. The presence of blood in the stools even in small quantities makes the prognosis very grave.

Appendicitis.—GILBERT BARLING (*Edinburgh Med. Journal*, December, 1899) contributes the results of operation in 117 cases, with some considerations on the questions of diagnosis, of recurrence, and of mortality. Of this number of cases 42 were operated on in a quiet interval. Of these 1 died. The remaining 75 cases he divides into four groups.

1. The "safe" abscess, in which the pus is localized by adhesions from the general peritoneal cavity, and the abscess is adherent to some part of the anterior parietal peritoneum, so that the surgeon opens directly into the pus without risk of infecting the general abdominal cavity.

2. The "non-adherent" abscess, in which the pus is shut off by adhesion from the general cavity, but the abscess is not adherent to the anterior parietal peritoneum, and the operator has to open the general cavity to seek the pus and evacuate it, and so runs the risk of general peritoneal infection.

3. The "subacute" widespread suppurative peritonitis, which approximates the next class, though there is considerable tendency for the inflammation to be limited by adhesion, and the peritoneum above the line of the transverse colon generally escapes.

4. The acute fulminating peritonitis, due to perforation or gangrene of the vermiform appendix, before limiting adhesions of any degree have formed.

The results of operation show that of Group 1, the "safe" abscess, but one case in nineteen operated on died, In none of these cases was the appendix removed. Up to the present time but one recurrence had occurred.

In Group 2, "non-adherent abscess," there were twenty-two cases, all of which recovered. In thirteen the appendix was not removed.

In Group 3 nine cases occurred with three deaths. In only one of these cases was the appendix removed.

In Group 4 there were twenty-six cases, showing fifteen recoveries and eleven deaths.

In addition to the author's statistics the paper contains little that is noteworthy or new.

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SATURDAY, DECEMBER 23, 1899.

CORONERS' DUTIES—PHYSICIANS' REPUTATIONS.

THE authentic account of a recent flagrant abuse of the authority of the Coroner of New York City is briefly given in our report of the last meeting of the New York County Medical Society. Two physicians were asked by patients of theirs to see a poor sufferer unable to pay for medical attendance. They did so at an interval of two weeks from one another, the second recommending her removal to Bellevue Hospital. The case terminated fatally at the hospital. A coroner's physician decided, on what cannot but seem extremely inadequate grounds, that death had resulted from criminal abortion. Both the medical attendants were arrested and imprisoned. Slight additional investigation showed the utter baselessness of the charge, and the physicians were cleared of all blame in the case.

Of course by this time the harm had been done. For an act of charity physicians had been subjected to the indignity of arrest and imprisonment, to days of worry and injured feeling, and, though completely exonerated by the authorities, their professional reputations were seriously endangered by the unenviable notoriety given to the parties by the press. For it all there is, it seems, absolutely no legal redress. No one is responsible before the law for the mistake. This is, of course, an extremely serious state of affairs. Already there are many physicians who hesitate about the fulfilment of their duty in certain cases because of the liability to involvement in suspicious circumstances. If previous good standing in the profession will not serve to protect physicians from such groundless accusations, then every physician will hesitate to have anything to do with cases that above all others often need prompt and efficient attention. The subject has been placed in the hands of the *comitia minora* of the New York County Medical Society for investigation and for a report as to the advisability of a legislative remedy for present abuses. We sincerely hope that it will receive the most thorough consideration and that some efficient means of relief may be suggested. In Massachusetts they have done away with the office of coroner altogether and do not appear to regret his going. Certainly here in New York his official actions may be so hedged about by safeguards that his powers cannot be used to injure honorable professional men. There is enough crime, flagrant, almost open crime, to occupy the attention of the office in just the lines of this case without the necessity for arrests on slight suspicions. The standing of a medical man in his profession must be the first consideration in such cases. If that is high, then circumstantial evidence, unless of the most conclusive character, must not be permitted to lead to official steps that shall peril his reputation.

THE MEDICAL CORPS OF THE ARMY.

A BILL for the numerical increase of the Army Medical Corps and for the furtherance of its efficiency has recently been prepared by Surgeon-General Sternberg and will be submitted by him to the coming Congress for legislative action. While even in time of peace, with an army of 25,000 men the number of medical officers was repeatedly reported as being insufficient for the needs of the service, the recent increase of the standing forces to 62,000 men, the establishment in the United States of twenty-eight garrisoned sea-coast defences, the forty-two independent commands now serving in Cuba, Porto Rico and Hawaii, together with the

large number of troups in the Philippine Islands, all combine to render the present strength of the Medical Department pitifully inadequate. It will be remembered that last winter, when Congress authorized a large increase in the combatant forces, no provision whatever was made for a proportionate increase of medical officers. As a consequence, further recourse to the wholly unsatisfactory system of employing civilian physicians under contract has been necessary, and at present not one third of the medical men serving under the colors are trained medical officers. The present authorized strength of the Medical Corps is 192 and General Sternberg asks for an increase of 124 medical officers; an addition which must be considered as extremely moderate in view of the fact that the strength of the army—for the health and care of which the Medical Department is responsible—has been increased two and one half times.

The work of the army medical officer is largely specialized and it will not do to entertain the idea that the civilian practitioner, however well qualified he may be in the practice of his profession, is at once competent to perform the multifarious duties connected with the medical service of the military establishment. Surgery is limited in the army, the practice of medicine is circumscribed within narrow limits and the army surgeon is, under regulations, primarily a sanitary officer. Hygiene, however, is a branch of medical seience which, being unremunerative furnishes no financial stimulus for its study and hence is largely ignored in both the collegiate curriculum and the practice in civil life. Hence it is that there are but few men in civil life who are, though previous training, fitted to solve the sanitary problems daily presented to the medical officer.

The profession at large, from whose ranks the personal of the Army Medical Corps is selected, must stand as sponsor for its representation in the military service and ensure that reasonable measures for the promotion of efficiency in the latter are not ignored. We, therefore, commend General Sternberg's bill, to the favorable consideration of the medical men of the United States and urge that such active measures be promptly taken, both individually and collectively, as will bring about much-needed congressional legislation during the coming winter.

ECHOES AND NEWS.

Dr. E. Eliot, Jr., has been appointed attending-surgeon at Presbyterian Hospital in place of Dr. C. K. Briddon, resigned.

New Yellow-Fever Serum.—The Sanitary Institute in Montevideo, Uruguay, it is declared, is preparing a new yellow-fever serum which is considered superior to Professor Sanarelli's.

Tenement-house Committee of the Charity Organization Society has offered four prizes to architects for plans for improved city tenements. The plans submitted are to be exhibited in connection with the tenement-house exhibition to be held this winter in New York and other cities.

Deaf and Dumb School Burned.—The Western Pennsylvania Institute for the Deaf and Dumb, situated at Edgewood, was destroyed by fire on December 14th. It is believed that the pupils, 500 in number, were all saved. The loss is placed at $150,000, with insurance of $100,000.

Japan Stamps Out the Plague.—The Japanese authorities are entitled to much praise for their speed and skill in stamping out the bubonic plague. The disease was not allowed to spread beyond the seven patients originally attacked. All of these died, but they were so well isolated that no new cases were reported.

Dr. Frederick L. Johnson, thirty-one years old, died at his home at Maspeth, Queens borough, on December 11th. He had overworked himself for some time and had developed insomnia. It is believed that he took by mistake an overdose of chloral. His condition was not discovered during the night and he was found dead on the morning after taking the dose.

Dr. Northrup Lectures at Yale.—By invitation of the Yale Medical Alumni Association Dr. W. P. Northrup, professor of Pediatrics in the University and Bellevue Hospital Medical College, delivered an address to them December 13th on "Some Paths of Tuberculous Infection." President Hadley presided at the meeting. Later a reception was given at the house of Dr. Leonard Bacon.

Medical Men in Municipal Life.—The *British Medical Journal* in its recent issue calls attention to the fact that among the new mayors recently elected throughout Great Britain the medical profession is well represented. There were thirteen doctors elected to the office of mayor. It is a sign of the times, says the *Journal*, alike beneficial to the civic life of the nation and honorable to an honorable profession.

International Congress on Tuberculosis.—The British National Association for the prevention of consumption and other forms of tuberculosis is taking steps to organize an international congress to be held in London in the

spring of 1901. Invitations will soon be issued to 600 representative persons and institutions in the United Kingdom to attend a preliminary meeting for the purpose of making arrangements.

Hydrophobia in Washington.—The Department of Agriculture issued on December 12th an order prohibiting the immigration or emigration of dogs to or from the District of Columbia. Dogs with muzzles may, however, be immigrated. The reason for the prohibition is that a hydrophobic scare prevails in the neighboring sections of Maryland and Virginia. The District Commissioners are not pleased with the department's action.

Harlem Hospital.—Dr. Dudley, of the staff, appeared before the Harlem Board of Commerce at 50 West 125th street on the evening of December 11th. He denounced the condition prevailing in the present institution. The hospital is as crowded as a tenement and, under the the circumstances, most unfortunate results follow. Patients have to sleep on the canvas stretchers on the floor. There are no lying-in accommodations and at times the wards are "veritable horrors."

German Sanitary Conditions.—Dr. Leidy of Philadelphia is now in Berlin, where under the direction of Professor Virchow he is investigating diseases caused by animal parasites in food. He finds that such diseases are far more common in Germany than in the United States, their greater prevalence in the former country being due to the popular habit of eating uncooked meats. Dr. Leidy finds typhoid almost unknown in Berlin, probably because of the perfect filtration of the city's water.

The State Board of Charities has disapproved of the incorporation of the Emanu-El Hospital and Dispensary of New York City. Many protests were raised, notably by Dr. J. H. Byrne, the chairman, and Dr. F. R. Sturgis, the secretary of the Committee on Charities and Legislation of the New York Medical League. The principal ground of protest was that the Jewish community on the East Side does not need such an institution. This is one of the early fruits of the new dispensary law.

Red-Cross Help for Boers.—The Boers urgently need succor for the wounded and sick both of their own soldiers and of their British prisoners, America has been appealed to for help, and the American committee to aid Red-Cross work in South Africa has been formed. It in turn has appointed subcommittees in many parts of the country. Money is mostly needed, and those who would contribute must do so quickly. The committee meets at the office of Mr. Bergen, 55 Liberty street, and contributions are received there by Mr. Bergen as treasurer.

Craig Epileptic Colony.—The annual report of the Board of Managers of the Craig Colony, of which Dr. Frederick Peterson is the president, states that since its opening on February 1, 1896, 504 epileptics have been received, of whom 378 remain. When the new buildings now in course of construction are completed the capacity of the colony will be increased to a total of 720 beds. During the past year 95 new cases were admitted. Of these 40 were men and 55 were women; 35 were discharged. The death-rate in the colony during the past year has been but two per centum.

Health Outposts for Europe.—Drs. E. K. Sprague, G. M. Magruder, G. M. Corput, S. B. Gibbs, and W. C. Hobdy of the United States Marine Hospital Service, who sailed on the "St. Louis" on December 14th, will be stationed at European ports to see that all vessels with immigrants bound for the United States have a clean bill of health. Ten other physicians will follow them. Any immigrant-carrier failing to provide a bill of health signed by an American physician at the port of sailing will not be permitted to enter any American port. The doctors will be stationed at the American consulates of European ports.

Diphtheria Epidemics.—The prevalence of diphtheria in Irvington, N. Y., caused the closing of the public school from December 13th to January 2d. Fifteen cases and several deaths have been reported. In Paterson, N. J., there were reported from December 1st to the 12th inst. fifty-nine cases. It is feared the record will be 150 cases for the month. It is believed the condition of the public schools is primarily responsible for the spread of the disease. It is intended to follow the New York City plan of having physicians make daily school inspections. The epidemic is causing great uneasiness, and strict measures are being taken to prevent its further spread.

A $10,000 Suit Settled for $900.—In March last Dr. B. L. Robinson of McLean, N. Y., brought a suit for $10,000 for medical service against G. E. Chalmers of Cortland. The latter is a reputed millionaire. The case was settled on December 15th. In September of 1898 Mr. Chalmers "began to commit suicide" by hacking at his throat with a razor. When he had seriously wounded himself he repented and called for a physician. Dr. Robinson responded, and performed some really difficult surgical work. His patient recovered. The doctor based his charge for $10,000 on the ground that the life of the irresolute suicide was worth that amount. The attorneys for Mr. Chalmers declared that on this accounting the visits made by the doctor would average $1000 for each. The case was settled for $900.

An International Congress on Hypnotism.—A second international congress on hypnotism will be held in Paris from August 12 to 16, 1900, under the presidency of Dr. Jules Voisin. The following questions will be discussed: The formation of a vocabulary concerning the terminology of hypnotism and the phenomena connected therewith; the relations of hypnotism with hysteria; the application of hypnotism to general therapeutics; the indications for hypnotism and suggestion in the treatment of mental diseases and alcoholism; the application of hypnotism to general pedagogy and mental orthopedics; the value of hypnotism as a means of psychological investigation; hypnotism in relation to the (French) law of November 30, 1892, as to the practice of medicine;

suggestion and hypnotism in relation to jurisprudence, and, finally, special responsibilities arising from the practice of experimental hypnotism.

Dr. Harvey Reed Retires from the Wyoming General Hospital.—Dr. Harvey Reed, formerly of Columbus, Ohio, but recently of Rock Springs, Wyo., has resigned the position of medical director of the Wyoming General Hospital, to take effect December 31, 1899. The Wyoming General Hospital is a State institution, and under the control of a political board. When Dr. Reed accepted this position the institution had been in operation for three years, during which time there had been treated 272 patients. During the first year of his service he admitted and treated 313 patients in addition to eight holdovers from the former administration. During the second, which ended September 30th, 1899, he admitted and treated 378 patients, including 28 holdovers from the previous year. In addition to Dr. Reed's resignation, the chief nurse and chief house surgeon also tendered their resignation, and we understand on good authority that several other nurses will resign.

The Coffee Question at New York Quarantine.—The New York Board of Health has finally decided to admit to the docks the coffee ships that have arrived at Quarantine upon which no case of plague has developed. The coffee of "J. W. Taylor," the plague-infected ship, is still held upon the lighters, and cannot be landed until it has been roasted. The plan of the consignees of the ships that were being held at quarantine, to send them to Boston and ignore the action of the New York Board of Health was frustrated by an order from the Secretary of the Treasury, announcing that the ships would not be permitted to go to Boston as that would be participating in coastwise trade. To obviate the dangers of a similar predicament in case of the fleet of coffee ships now en route from Santos, the consignees have arranged to signal the ships outside of New York harbor until they can learn the sanitary condition of them and the likelihood of their passing the New York Quarantine and the Board of Health. If the prospect is not encouraging, the ships will probably be directed to go to Boston. What an absurd state of affairs! This would all be obviated by a national uniform quarantine.

MEDICAL MATTERS IN PHILADELPHIA.

[From Our Special Correspondent.]

SYPHILIS OF THE LIVER—A CASE OF ANTHRAX—DR. DEAVER ON RESECTION OF THE BOWEL—DR. STENGEL ON ANEMIA—GENERAL DISINFECTION OF THE PUBLIC SCHOOLS — HEALTH REPORT FOR THE CURRENT WEEK.

PHILADELPHIA, December 16, 1899.

TWO cases of syphilis of the liver were reported by Drs. J. A Scott and L. N. Boston at the last meeting of the Pathological Society, held December 14th. The first case, that reported by Dr. Scott, occurred in a man of sixty-nine years of age, in whom the initial lesion had developed forty years previously, and had healed without the subsequent appearance of secondary symptoms. Two years ago he first noticed a general enlargement of the abdomen, and in the early part of the present year edema of the feet and ankles became apparent. On his admission to the hospital, in March, 1899, his abdomen was much distended and filled with fluid; neither the liver nor the spleen were palpable. He was tapped six or eight times in all, and a total quantity of twenty-nine gallons of fluid was removed from the abdominal cavity by these operations. The patient finally died from an acute intercurrent infection with erysipelas. At the autopsy it was found that the liver weighed 2200 grams (4.3 lb.), and the spleen 1200 grams (2.3 lb.), both being firmly bound down to the adjacent tissues and organs by dense adhesions, the right lobe of the liver being quite divided into two separate parts by a large, deep scar. The pancreas was dislocated, the head of this organ being found to occupy a vertical position. A chronic fibrinous general peritonitis also existed. Referring to the general symptomatology of syphilis of the liver, Dr. Scott remarked that the common clinical manifestations were usually those of cirrhosis; in differentiating it from other forms of cirrhosis, absence of such symptoms as diarrhea and antecedent digestive disturbances were in favor of syphilis, the presence of a history of primary infection being, of course, most suggestive. Dr. Boston's patient, a woman thirty-two years of age, had noticed for the past six months a progressive enlargement of the abdomen, which she falsely attributed to an existing pregnancy; there had also been occasional attacks of vomiting, some bloody expectoration, and slight hemorrhages of the bowel, due, perhaps, to the prefence of hemorrhoids, from which the woman also suffered. After the aspiration of 176 ounces of fluid from the abdominal cavity, a period of improvement in the patient's general condition followed, but dyspnea and other symptoms again became distressing with the reaccumulation of the ascites, and at a second tapping 144 ounces of clear fluid were removed. The second operation was followed by a good deal of shock and some heart failure, from which the patient rallied but slightly, dying two days later. Autopsy showed that the liver was of a yellowish-gray color, stippled with fine yellowish areas encircled by fibrous bands producing at these points a somewhat depressed area; the organ was distinctly lobulated. Microscopical examination showed that, as a rule, the liver cells were well formed, and that areas of dense fibrous tissue dipped down from the capsule of the organ and extended well into the liver substance. The spleen was slightly enlarged and the peritoneum dormal.

At the same meeting Drs. J. H. Jopson and A. A. Ghriskey reported a case of anthrax occurring in a man of forty-eight years, a worker among raw, green hides in a morocco factory. Following infection through a slight scratch on the forearm, the patient noticed that the infected arm became much swollen, and that a peculiar spot appeared at the site of the scratch—a spot about 1 cm. in diameter, having a minute dark-colored center, and surrounded by sort of a halo of small, pearl-colored vesicles,

eight in number. After incision of the infected member by means of which a small amount of gelatinous matter, but no pus was removed, the patient seemed to improve somewhat, but four days later his temperature became subnormal, and after repeated abortive attempts to bring about reaction, he died. No post-mortem examination was made, but a bacteriological study of the local lesions made during life, gave interesting results. From material obtained from the central bleb-like area three microorganisms were found, a staphylococcus, a streptococcus, and a bacillus. A mouse inoculated with cultures of the bacillus died after a short period, and this fact, together with the cultured peculiarities of the organism, identified it as the bacillus of anthrax. The staphylococcus was regarded as the staphylococcus epidermitis albus, and the streptococcus was unidentified.

At the last meeting of the Academy of Surgery, held December 4th, Dr. John B. Deaver exhibited two patients upon whom he had done the Kraske operation. One was a young man of twenty-five, who had an intestinal growth which microscopical examination proved to be adenocarcinoma, in spite of his youth. Examination of the blood showed 69 per cent. of hemoglobin, 3,400,000 red cells, and 16,000 leucocytes per c.mm. A resection of 3.5 inches of the rectum was made, the external sphincter being also removed. In the second case 4 inches of the rectum was removed. In this case and also in another upon which he had operated control of the sphincter was not lost. Dr. Deaver stated that for some years he had not done an inguinal colostomy, being strongly in favor of the Kraske operation as performed without this preliminary. The function of the sphincter can be retained wherever this structure is not actually involved by the morbid process, and although a temporary fecal fistula has resulted in all his cases, all have finally closed without serious trouble. The speaker did not agree with Senn that these cases can be operated upon without involving the sacrum, believing that the parietal peritoneum cannot be handled so well by this method. The chisel or osteotome is employed, and the sacrum thus divided low down as a preliminary, and then as high up as necessary. In one case the cauda equina was exposed, but no bad symptoms followed this incident. Suturing the anterior part of the bowel is a difficult procedure, but this is rendered easier by saving as much tissue and levator ani as possible. By placing the patient on either side, the legs being strongly flexed, the whole rectum can be resected, and the sigmoid brought down, still retaining intact the sphincter. The wound is packed with iodoform gauze, and allowed to heal by granulation. This method of operation argues in favor of an earlier operation than is usually done in such cases. In conclusion, Dr. Deaver remarked that in his experience artificial ani in the groin or in the lumbar region had not proved satisfactory, and that he would make such an opening only in advanced cases, in order to make death easier, or to make the patient more comfortable for a time. Every case should be explored thoroughly to determine whether the other operation is possible, before colostomy is done.

At the last meeting of the Section on General Medicine of the College of Physicians of Philadelphia, held December 11th, Dr. Alfred Stengel reported a case of splenic anemia occurring in a child of three years. The blood findings were as follows: Hemoglobin, 30 per cent.; red cells, 2,920,000 c.mm.; leucocytes, 9600 per c.mm. Differential count of the latter showed 31 per cent. lymphocytes, mononuclear forms 50 per cent., polymorphonuclear neutrophiles 17 per cent., 1.6 per cent. eosinophiles, and 0.4 myelocytes. Erythroblasts were also found. These blood changes followed an acute attack of gastro-enteritis, subsequent to which anemic pallor, seizures of vomiting, and enlargement of its abdomen were noted. The lymphatics, spleen, and liver were enlarged. The case in question was regarded as an instance of marked secondary anemia with enlargement of the spleen, there being, in the reported opinion, no proof of the existence of a true primary splenic anemia.

A general disinfection of all the public schools is to be made, owing to the great prevalence of diphtheria and of other contagious disease among the pupils of the various schools, a condition which has already necessitated the closing of several schools in different parts of the city. The buildings are to be disinfected during Christmas week, so that it is hoped by the new year that every school will be able to present a clean bill of health.

The number of deaths in this city during the week ending December 16th was 445, an increase of 33 over the number reported last week, and a decrease of 36 from the number reported during the corresponding week last year. Returns of contagious diseases were as follows: Diphtheria, 154 new cases, 26 deaths; enteric fever, 32 cases, 3 deaths; scarlet fever, 65 cases, 2 deaths.

MEDICAL MATTERS IN CHICAGO.

[From Our Special Correspondent.]

FIVE CASES OF DIAPHRAGMATIC HERNIA — A NEW PATHOGENIC FUNGUS—RELATION OF MENTAL DISEASE TO LIFE EXPECTANCY—RELATION BETWEEN RECTAL DISEASES AND LIFE EXPECTANCY—EXAMINATION OF WOMEN FOR LIFE INSURANCE—RELATION OF CHRONIC EAR DISEASES TO LIFE INSURANCE.

CHICAGO, December 16, 1899.

AT a meeting of the Chicago Pathological Society, held December 11th, Dr. Charles A. Parker reported five cases of diaphragmatic hernia, three of which were traumatic. The specimens and data of three of these cases were furnished by Dr. L. Hektoen; the other two were observed by the author in the dissecting-room of the same institution. All were found post-mortem. There was no history of ante-mortem symptoms obtained in any of the cases, and in none was there any evidence that the condition had shortened the owner's life. All were adults, one woman and four men. Four were on the left side and one on the right. In no case was there a complete sac, and in but one was there even an attempt at its formation. In the three traumatic cases scars were found in the integument of the lower left chest wall and extending into the deeper tissues, in one making the

union of the cut ends of the seventh and eighth costal cartilages of that side and terminating at a circular opening 1.5 cm. in diameter in the sixth intercostal space in the mammary line; in another leaving an opening in the eighth interspace in which was an adherent fringe of great omentum of the hernia; and in the other there was no noticeable change in the intercostal tissues. The diaphragm was penetrated in its muscular position in all three of these cases, and in nearly the same place, anterior, and to the left. The opening in one was 2 mm. in diameter, in another 5 mm., and in the third 2.5 cm. by 4 cm.

The contents of two of the traumatic cases were simply omentum, but in the third and larger one were the transvere colon, twenty inches long, with its mesentery and vessels, and part of the great omentum, occupying a considerable portion of the left pleural cavity to the left of the pericardium. In this case an incomplete sac formed mostly of great omentum extended through the intercostal opening, and some distance down on the external surface of the chest wall beneath the skin forming an intercostal hernia. Its inner surfaces were not adherent at the opening, and it is possible and quite probable that at times of increased abdominal and thoracic pressure portions of the large intestine were forced into it, forming part of the contents of this most unusual (intercostal) variety of hernia.

Of the two cases considered congenital from lack of evidence of traumatic origin, one was a female and one a male. In the former there existed an opening in the left anterior region of the diaphragm two inches in diameter, transmitting into the left pleural cavity a hernia that consisted of the stomach and first portion of the duodenum, the entire transvere colon and great omentum. As there were very few adhesions to the surrounding structures, there were quite freely movable, so the contents of the hernia probably varied from time to time.

In the male subject an opening 3¾ by 4½ inches occupied a considerable portion of the right half of the diaphragm, and through it extended the larger part of the liver, including most of the right and left lobes, with the gall-bladder into the right pleural cavity, where it was firmly held by strong adhesions. The margin of the opening was free throughout the greater part of its extent, and the hand could be freely passed from the abdomen into the thorax in front of the line.

At the meeting of the Chicago Pathological Society, held December 11th, Dr. Hektoen described a new pathogenic fungus, the sporothrix of Schenck. This fungus was first described by Schenck who isolated it from refractory subcutaneous abscesses of the forearm and arm of a man. Dr. Hektoen obtained the same fungus from a series of similar, very refractory subcutaneous abscesses of the hand and forearm in a boy under the care of Dr. Perkins of Shenandoah, Iowa. The fungus consisted of septate, branching threads; around the ends and along the sides of the branches appear oval and oblong conidia, which, when isolated, greatly resemble yeast bodies. The fungus grows readily on ordinary media and stains by Gram's method; it is pathogenic especially for rats and mice, producing ulcers and chronic abscesses with much connective-tissue formation; only the spores or conidia are found in the lesions. The report was illustrated with a series of excellent lantern-slides.

At a joint meeting of the Chicago Medical Society and the Chicago Medical Examiners' Association held December 13th, Dr. Harold N. Moyer read a paper on "Relation of Mental Diseases and Residence in an Asylum or Sanatorium to Life Expectancy." He said that life-insurance examination, the only purpose of which is to determine probable longevity, furnishes the basis of a contract between insured and insurer. The blank forms for data gathered by the medical examiner might be improved by a form calling for family and personal history to be filled out and filed by the applicant. This would give the examiner wider latitude in passing on the risk, and overcome the tendency of some to sink the spirit of the examination in the latter.

The most important nervous disease in relation to insurance is paretic dementia. The average duration of life after an attack is about three years. The symptoms of this disorder are not covered in the ordinary blank. It is not the outcome of specific diseases, mental strain being the most frequent contributing factor; the slight importance attached to this by the applicant, however, causes it to pass without notice. Where amounts of insurance beyond the supposed means of the individual are applied for, paretic dementia should always occur to the mind of the examiner and a careful inquiry should be made into the immediate history of the applicant.

Dr. Weller Van Hook followed with a paper on the "Relation between Rectal Diseases and Life Expectancy," in which he discussed the commoner diseases of the rectum, hemorrhoids, stricture, abscess, fistula, gonorrhea, ulcerations, prolapse, and carcinoma, in causal relation to one another and in relation to life expectancy.

Dr. Denslow Lewis discussed the "Examination of Women for Life Insurance." He said that life insurance is a business proposition. The basis of calculation in life insurance is not perfection of health, but a standard. The average life probability of standardized groups is the basis of insurance statistics. The perpetuity of life insurance and the reliability of actuarial computation depend on the determination of the standard. The prescribed examination of women fails to discover many important pathologic conditions which affect the risk and influence the standard. Dangers of child-bearing are now considered compensated by diminished exposure, more regular mode of life, etc. Increased moral risk is recognized in young divorced widows, and the influence of economic and sociologic relationship is appreciated. Gynecologic examinations should be made in every applicant to determine pathologic conditions not discovered by the usual form of examination which was devised originally for investigation of men. Hardening of the breast is a cause for rejection unless the sequel of recent abscess. If the finger in the vagina cannot touch the promontory of the sacrum the conjugate diameter may be assumed to be sufficient for the parturition. Lacerations

of perineum and cervix are especially important when infected. Leucorrhea usually indicates infection which should be investigated. Infection is always a potential danger, for the limits of possible extension cannot be determined. The differential diagnosis for insurance purposes is unnecessary. Tenderness in either fornix and any intrapelvic deviation from the normal condition, as determined by bimanual examination, is sufficient cause for postponement or rejection.

Dr. J. Homer Coulter dealt with the "Relation of Chronic Ear Diseases to Life Insurance," confining his remarks to the subject of chronic suppurative otitis media. An acute suppuration of the ear will, if left alone, tend to become chronic, and many cases improperly treated will tend either to seriousness or chronicity; hence, a complete and fully detailed report of the case is necessary in examining an individual for life insurance. Medical directors generally do not accept an applicant for insurance at ordinary rates who gives a history of chronic or repeated attacks of acute inflammatory affection of the ear. While this rule may work injustice in some cases, it is the only course to protect the companies, except in those few rare instances where the applicant is willing to pay for the services of an expert otologist who can give a technical report upon his case. It is not because of the proportion of fatalities that occur in suppuration of the middle ear that the speaker would urge its particular importance in relation to life insurance, but rather because of the large number of suppurating ears met in practice, any one of which is liable to go on to mastoid involvement, with sinus or brain complication, and death. Admitting the seriousness of this class of cases generally, even with the best treatment, and also the practical fact that those afflicted with chronic suppuration of the ear are not considered insurable at ordinary rates, the very pertinent question arises, can these applicants become safely insurable risks by any method of treatment or operation? Or, Are any of them with less prominent symptoms only being manifest, in their present condition, deserving of a first-class rating? Most important in this connection is the necessity of an examiner in whom the medical director places implicit confidence. If from such an examiner, using appropriate instruments, a complete report is received as to the functional activity of the ear, and in connection therewith a carefully detailed history of the symptoms of the case from the time of the first attack, then will the medical director be in a position to determine whether or not the applicant is an insurable risk. If the applicant be entirely free from attacks of tinnitus, vertigo, headache, disturbance of vision, or itching in the ears, for a period of several years, then he may be considered safely insurable so far as the ears are concerned.

Horse Sickness in Natal.—One of the worst enemies with which the British cavalry in Natal will have to contend goes by the names of "dikkop" and "throat sickness." It is a species of anthrax. Experts describe it as a soil-developed disease, produced by a small living organism, of a vegetable nature, known as the Bacillus Anthracis.

SPECIAL ARTICLE.

TO THE MEMBERS OF THE MEDICAL PROFESSION IN THE UNITED STATES.

THE cause of humanity and of scientific progress is seriously menaced. Senator Gallinger has again introduced into Congress the bill for the "Further Prevention of Cruelty to Animals in the District of Columbia," which he has so strenuously and misguidedly advocated in the ast two Congresses. Its present number is "Senate Bill No. 34." Twice the Committee on the District of Columbia has also unfortunately and misguidedly reported the bill with a favorable consideration. The bill is speciously drawn to seem as if it were intended only in the interest of prevention of cruelty to animals. The real object of the bill is twofold: first, to prohibit vivisection and, secondly, to aid the passage of similar bills in all the State Legislatures.

I need hardly point out to you that this would seriously interfere with or even absolutely stop the experimental work of the Bureau of Animal Industry and the three medical departments of the Government, the Army, the Navy, and the Marine Hospital Service. The animals themselves might well cry out to be saved from their friends. No more humane work can be done than to discover the means of the prevention of diseases which have ravaged our flocks and herds. All those who raise or own animals, such as horses, cattle, sheep, pigs, chickens, etc., are vitally interested in the preservation of their health and the prevention of disease.

The inestimable value of these scientific researches as to the prevention and cure of disease among human beings it is superfluous for me to point out. Modern surgery and the antitoxin treatment of diphtheria alone would justify all the vivisection ever done.

As my attention has been called officially to the introduction of the bill I take the opportunity of appealing to the entire profession of the country to exert themselves to the utmost to defeat this most cruel and inhumane effort to promote human and animal misery and death and to restrict scientific research. It is of the utmost importance that *every physician* who shall read this appeal shall *immediately* communicate especially with the Senators from his State, shall also invoke the aid of the Representatives from his or other districts in his State and by vigorous personal efforts shall aid in defeating the bill.

It is especially requested also that all of the National, State, and County societies at their next meeting take action looking toward the same end. If regular meetings are not soon to be held special meetings should be called. Correspondence is invited from all those who can give any aid.

The Committee on the District of Columbia consists of Senator James McMillan (Michigan), Chairman, and Senators J. H. Gallinger (New Hamshire), H. C. Hansborough (N. Dakota), Redfield Proctor (Vermont), J. C. Pritchard (N. Carolina), Lucien Baker (Kansas), C. P. Wetmore (Rhode Island), C. J. Faulkner (W. Virginia), Thomas S. Martin (Virginia), Wm. M. Stewart and

Richard Kenney (Delaware). Personal letters may be addressed to them or to other Senators. Petitions should be addressed to the Senate of the United States.

W. W. KEEN,
President of the American Medical Association.

PHILADELPHIA, DECEMBER 16, 1899.

[The urgency of this appeal and the value and importance of prompt action by the individual members of the profession as well as the organized societies and associations cannot be too vigoriously insisted upon. Let us one and all stand shoulder to shoulder in this matter, and make it plain to Senators and Representatives that the solid vote of the profession in the County, the District, and the State, regardless of party politics, will be cast against the man who fails in his duty in this matter. The bill is a blow aimed at the very foundation of scientific medicine, and that to us is the most vital question that can be raised. A flood of remonstrance, such as is contemplated in this appeal, cannot fail to open the eyes of Congressmen to the serious nature of the bill and the earnestness of the profession.—ED.]

CORRESPONDENCE.

NOTES ON MANILA.

To the Editor of the MEDICAL NEWS.

DEAR SIR:—As a member of the Medical Commission sent by the Johns Hopkins University to study the tropical and other diseases in the Philippine Islands, I send you a few notes gathered from personal experience which may prove of interest to your readers.

The climate is continually that of summer, the heat, especially, during the wet monsoon being peculiarly moist. It is the constancy of the heat through night and day, together with the high degree of humidity, rather than the actual elevation of the temperature which makes the climate trying. The northeast monsoon prevails from October to April, and corresponds to the finest portion of the year in the Philippines. During these months the climate leaves but little to be desired. May and June are the two hottest months in Manila, and these months, together with the beginning of the wet season, are the most difficult to bear. The wet season corresponds to the period of prevalence of the southwest monsoon. Typhoons or circular storms may occur at almost any time, but espepecially when the monsoon changes. They cause enormous losses of life and shipping, though now, through the activity of the Jesuit fathers at the Manila observatory, the approach of a typhoon is always recognized at an early hour, so that storm signals can be raised along the coast and the advent of the storm be communicated to Hong Kong by submarine cable.

Modern Manila is a composite town consisting of the old walled city and a large number of suburbs, each with its own special name and streets. The same name may be given to a street in two different suburbs, so that in giving one's address it is often necessary to associate the name of the suburb with that of the street. Outside the walled city the main business portion of the town is in the region known as Binondo. The aristocratic residence quarter for the Spaniards was the suburb called San Miguel. In this district was the Governor-General's residence and the homes of many of the Spanish officers and foreign consuls. In Ermita and Malate most of the rich foreign traders reside. Tondo was almost a purely native district, and it will be remembered that it was here that the worst outbreaks occurred during the insurrection. This portion of the town was almost entirely burned down. Other districts are Concepcion, Santa Cruz, Quiapo, Sampaloc, and Paco.

The fortifications about the old city consist of bastioned and battlement walls built at the end of the sixteenth century. Just outside the walls, except where the city is naturally surrounded by water, there are deep moats said to be paved at the bottom and provided with sluices with which they can be filled with water from the Pasig River. These moats are now partly full of water, the edges are overgrown, and there is much mud and organic refuse in the bottom. An attempt was once made to cleanse the moats, but was soon abandoned, as it was feared that the removal of the stagnant water and putrid vegetable material might give rise to a severe epidemic. The city is lighted by electric light; the paving is for the most part inferior. A tramway runs through the town, the cars being drawn by ponies, most of them in wretched physical condition. There were several daily papers in Spansh times, but nearly all of these have given place to English dailies since the American occupatiou. The population of Manila, including the suburbs, was estimated in 1896 to be 340,000. The total population of the islands is probably less than 8,000,000, of which 100,000 are Chinese. There were at the time of the outbreak of hostilities about 25,000 Europeans in the Archipelago.

The city of Manila is supplied with excellent water, which is pumped to a large reservoir situated several miles from the city, and thence conducted into the city by large pipes.

The hospitals in Manila may be conveniently divided into the military hospitals and the civil hospitals. The American army hospitals consist in the first place of two large institutions, the First Reserve Hospital situated in Concepcion and a Second Reserve Hospital located in Malate. Besides these two there are situated in different parts of the city various district and regimental hospitals which attend to minor ailments of soldiers and serve as feeders for the larger institutions when more severe diseases are encountered. Colonel A. A. Woodhull is the surgeon in chief of the army forces in the Archipelago. His extensive medical experience, together with his unusual executive ability, largely account for the excellent administration which one finds in Manila. The First Reserve hospital, under the charge of Major Crosby and a large force of surgeons and physicians, has some 1200 beds, and to it come most of the gunshot wounds and a large proportion of the very acute diseases. The wounded insurgents are also cared for here. The Second Reserve Hospital, under Major Keefer and a number of assistants, was originally intended as an overflow hospital for the First Reserve and for the reception of con-

valescent and less severe cases. As matters have turned out, however, this hospital has come to contain as severe cases as the First Reserve. The hospital-ship "Relief," lying in the harbor, also received acute surgical and medical cases As a convalescent hospital the institution on Corregidor Island has proved most valuable. The air there is cool and fresh, and patients sent there have almost invariably done well. The wounded and sick from the various regiments on the fighting line, and the stations outside Manila are brought in by railway or by wagon-train to the Manila hospitals. At the First Reserve Hospital there is an excellent laboratory, which during our visit was under the charge of Lieutenant Strong. Through the courtesy of Colonel Woodhull and the hospital authorities this laboratory was placed at our disposal, and all of the patients in the various hospitals were freely made accessible to investigation. Clinical studies were conducted in the wards, and in the morgue autopsies were conducted. Bacteriological examinations and studies of the blood, together with animal experiments, were made in the laboratory.

Of the city hospitals in Manila may be mentioned San Juan de Dios in the walled city, the Hospital de la Convalecencia and Hospicio de San José, on an island in the Pasig River, and St. Lazarus, the asylum for lepers, in the ward of Santa Cruz. These civil hospitals were also made accessible to the work of the medical commission through the courtesy of Major Frank Bourns of the Provost Marshal's department. Dr. Bourns, who had charge of the sanitation of the Manila, deserves great praise for the energy he has displayed in reorganizing the sanitary regulations.

When the American army first went to Manila there was a large mortality among American soldiers from smallpox. Among the natives the disease was as common as measles or scarlet fever, and not much more feared than these diseases. A large proportion of the faces one sees in the streets are pitted. Dr. Bourns immediately undertook the vaccination of the whole population of Manila. He had to use at first imported virus, but this being unsatisfactory on account of imperfect communications and the very hot climate, an attempt was made to prepare a virus in the city. Cattle being unat tainable owing to the insurrection, he was forced to institute a *carabao* (water buffalo) vaccine farm. This proved to be very satisfactory, and the lymph produced is as effective as can be desired. Some eighteen Filipino physicians were engaged to vaccinate the native population, and the work was done so thoroughly that when we were in Manila smallpox had been almost entirely stamped out.

Soon after our arrival in the islands we had the opportunity of studying a large outbreak of beri-beri, and Colonel Woodhull asked us to examine a number of Filipino prisoners confined in the old Spanish prison at Cavite suffering from the disease. No less than 200 of the 1000 prisoners there developed beri beri, and the various types could be studied with ease.

It is customary to divide cases of beri-beri into three main types: (1) The edematous form, (2) the paralytic form, and (3) the mixed form. In nearly all cases circulatory disturbances are marked early in the disease. There is palpitation of the heart and throbbing of the peripheral vessels. Physical examination shows enlargement of the heart, especially of the right side. This enlargement is due chiefly to dilatation, and is accompanied with very marked cardiac distress. The patients cry out as one goes through the ward, "Mi pecho, mi pecho!" Digestive disturbances are also common at the beginning. There is nausea, anorexia, and frequently vomiting. In the edematous form the legs begin to swell, and the edema gradually extends upward until in some cases the whole body is involved. In very severe instances there is hydroperiteneum, hydrothorax, and hydropericardium. Many of the latter cases terminate fatally.

In the paralytic form without edema disturbances of locomotion come on gradually. The symptoms resemble closely those of peripheral neuritis, but differ somewhat from the latter disease as ordinarily met with. Many observers believe that no actual neuritis exists, but only a degenerative process. Pain is usually present in some part of the body. Pressure on the muscles of the calf usually causes excruciating pain. Sensation may or may not be considerably involved. The reflexes also vary with the distribution of the neural lesions. After a time muscular atrophy sets in, and these patients may become much emaciated.

In the so-called mixed form edema and paralysis are associated. The clinical and epidemiological history of the disease speaks strongly in favor of an infectious nature. The symptoms are those of a severe intoxication.

Cultures made from the blood from a large number of cases yielded negative results. Careful autopsies were conducted on those who died while we were in the islands, and the pathological material collected was brought back to this country. It will be thoroughly studied and the results published later.

LEWELLYS F. BARKER, M.D.

BALTIMORE, MD.

OUR LONDON LETTER.

THE "HEALTH ARMY" OF THE TRANSVAAL COMPAIGN—STRIKING CASE OF LEPROSY AT THE POLYCLINIC — NEWCASTLE CONFERENCE ON MEDICAL POLITICS—GOVERNMENT BY SMALL AND IRRISPONSIBLE OLIGARCHIES — DEMAND FOR "ONE PORTAL" TO THE PROFESSION— MEETING OF GENERAL MEDICAL COUNCIL—PROPOSED RECOGNITION OF "FOREIGN DEGREES."

LONDON, December 9. 1899.

As usual our profession is in no whit behind in the present schemes of philanthrophy for the care of the families of reservists called to the front. Ten days or more ago several physicians proposed that the profession agree to treat the wives and families of soldiers without fee and this has been cordially responded to upon all sides, and lists are being forwarded to the head military authorities in each district of the names of doctors willing to volunteer for this gracious service.

A most typical case of leprosy in a Norwegian sailor,

showing the brownish bosses on the forehead, the thickening and flattening of the bridge of the nose, the loss of the eyebrows and sclerosis with anesthesia of the skin of the hands and feet, was shown at the Polyclinic this week by Mr. Hutchinson. The part played by the anesthesia in some lesions of the disease was well illustrated in the enormous scars which marked the hands, the largest of which had been due to the patient resting his hand against the edge of a stove and not noticing the injury until quite severely burnt. This makes the eighth case of leprosy shown in the surgical clinic at the college in the past five months.

The conference on medical politics held at Newcastle the past week was a meeting of much importance and significance. It was called primarily for the purpose of enabling the three members of the General Medical Council elected by the direct vote of the profession at large, Mr. Horsley, Mr. George Brown, and Dr. Glover, to report to and consult with their constituents in that part of the kingdom on some important questions of medical politics. Indeed, it may be best described and is generally referred to as a conference on medical politics. Mr. Horsley's address was a vigorous comment upon and demand for the reform of the method of electing the great governing bodies of the profession, the Colleges of Physicians and Surgeons, and the General Medical Council. The situation in all these bodies is one singularly like that in our own United States Senate, in that they are elected not by the direct vote of the profession but by a variety of small corporations and organized bodies which, like State Legislatures, can be "packed," so that in Mr. Horsley's vigorous terms, "our unfortunate profession is governed by a series of small oligarchies who regard themselves as entirely irresponsible to the great body of practitioners."

As we have already pointed out the proceedings of the business sessions of the British Medical Association are really little better than a farce, on account of the almost absolute power possessed by the General Medical Council, supposed to be elected by the association, and the Councils of the College of Physicians and College of Surgeons which are both elected by a small and comparatively select body numbering scarcely a tenth of the total membership of the colleges, and turning an absolutely deaf ear, as shown in the late account of the Council of the Royal College of Surgeons in regard to the new charter, to all appeals to admit the mass of their constituents to even a partial voice in their election. And as both of these governing bodies are composed chiefly of consultants or specialists it may be imagined how easily questions affecting the general practitioner can be shelved or delayed in settlement.

Sir George Brown's address dealt chiefly with the most anomalous and unsatisfactory condition of the hopeless variety of degrees or qualifications entitling to practise in England and made a vigorous plea for the institution of, what has now come to be quite generally demanded by the rank and file of the profession, a "one portal" system, by means of a State Examining Board, instead of the ancient and cumbrous corporations which now perform this function. Such, however, is the power of precedent and the respect and affection for established usage in England that we fear it will be long before this "council of perfection" can take actual practical form.

Dr. Grover devoted himself chiefly to the burning question of medical practice, and urged the formation of a strong and competent conciliation board which should plan some "modus vivendi" between the clubs with their nearly three million members and capital of nearly $120,000,000, and the hitherto comparatively scattered and unorganized medical profession. He recognized frankly that contract medical practice would have to be accepted for the present at least as a feature of medical work and the best possible terms should be made with it. The discussion which followed was keen and interesting, the proceedings lasted altogether nearly five hours in continuous session, and from the general feeling of approval in the profession it seems likely that these meetings, inaugurated we believe by Mr. Horsley, will be held in every section of the Kingdom and become an important factor in the development and protection of our professional interests.

The meeting of the General Medical Council which is being held this week will deal with several important questions, among them the ever recurring one of contract medical practice and the dispensing of drugs by physicians, this latter being given special point by the painful death of Dr. Dick, reported some months ago, from an overdose of his own medicine, taken to re-assure a patient. The third main subject is of some interest to American practitioners, *viz.*: "medical reciprocity," as it is termed, in which the question of recognizing the degrees of at least certain colleges and bodies in foreign countries, as entitling to practise in England, in return for similar concessions as to English degrees will be considered.

This has been referred to the council in practical form by no less an authority than the British Government, on the basis of a proposition from the Italian ambassador, asking whether if English practitioners were admitted to full privileges in his country, Italian practitioners could be granted similar rights in England and her colonies. As on account of the rapidly increasing winter colonies of English and Americans in the South of Europe this privilege is one greatly coveted by English medical men, it looks as if some positive action were likely to be taken, although there is at once a most powerful opposition to the granting of similar privileges to Italian practitioners here. And though no formal application has been made from any American body or practitioner in this regard, the cry has already been raised that if this door be opened, it will finally lead to the flooding of England with American medical men attracted by the large American colony, or that English students will flock to America and return decorated with the shorter-term American degrees.

Plague Mortality in Hong Kong.—The Governor announced at a meeting of the Legislative Council that the total number of deaths of bubonic plague that had occurred at Hong Kong during the present year was 1413.

TRANSACTIONS OF FOREIGN SOCIETIES.

German.

GERMAN SCIENTISTS MEETING AT MUNICH—NANSEN'S POLAR DISCOVERIES—RADIOGRAPHY IN RELATION TO SURGERY—THE NATURE OF ASTHMA—POSITION OF THE STOMACH—TREATMENT OF SACRO-ILIAC TUBERCULOSIS—AN UNUSUAL OUTCOME OF ACUTE OSTEOMYELITIS—IMPLANTATION OF THE UTERUS FOR THE CURE OF FISTULA. PERFORATION OF INTESTINE FROM INGESTED BONE—GOOD AND BAD RESULTS FROM X-RAYS—A COLLECTION OF LYMPH FOLLOWING INJURY—HEREDITARY GOITER—HEREDITY A FACTOR IN CYSTIC KIDNEY.

THE Seventy-first Convention of German Scientists and Physicians, held at Munich from September 17th to 23d, was opened by several addresses of historical and local interest. The Arctic explorer NANSEN, in an address profusely illustrated with lantern-slides, described the character of the Siberian coast and of the islands lying to the north of it. He made the most interesting discovery that the supposedly shallow Polar Sea really possesses a depth of more than 4000 meters (nearly two and a half miles). The "lifting" of the polar ice is due, he said, to the influence of warmer streams of water acting upon it from beneath. At various places in the ice are found fresh-water lakes, which afford not only excellent drinking-water, but have their own fauna and flora. At no place did he find the temperature of the air below —53° C. (—63° F.), while on the main land of Siberia there has been noticed a temperature fifteen degrees lower than this. For this reason and others Nansen is convinced that at the very Pole in summer birds and perhaps also walruses may be found.

BERGMANN spoke of the possibilities of radiography in the treatment of surgical disease. He outlined the successes already accomplished with the help of the X-ray, but he did not take as rosy a view of its possibilities in the diagnosis of internal troubles as some others have done. In military surgery and in the treatment of deformities the success of the X-ray is well known.

In the Section for Internal Medicine RIEGEL spoke of the treatment of asthmatic attacks. By experiments made to determine the part played by the bronchial muscles in such attacks he concluded that asthma, whether of an idiopathic or reflex nature, is produced through the influence of the vagus nerve. This being the case, the various narcotics which have been employed should be laid aside, and an attempt should be made to reduce the irritability of the vagus nerve. For this purpose no remedy is superior to atropin. In many cases a single subcutaneous dose will suffice to cut short an attack.

MEINERT disputed the idea of Rosenfeld that a horizontal position of the stomach is pathological, and that the only normal position is vertical. The position of the stomach is different in different people. Moreover, it is determined to a large extent by the condition of the surrounding organs. In slim individuals the transverse position may be normal, while in others, especially in women, the normal position may be a vertical one.

In the Section for Surgery, BARDENHEUER advocated resection of the sacro-iliac synchondrosis for tuberculosis. The trouble is almost always a primary local one, and is usually found in men in the third decade of life. The sacrum is often affected so that the disease may extend through it into the corresponding joint of the other side. The chief symptoms are pains in the back, made worse by long standing, and projected downward along the sciatic nerve; pain on pressure upon the joint either anteriorly or posteriorly, produced also by pressure on the iliac crests, and the formation of abscess, appearing either below Poupart's ligament or under the gluteal muscles or in the iliac region or behind the joint. Such patients untreated suffer from long-continued suppuration with amyloid degeneration, to be followed usually by tuberculosis of the lungs. Resection of the joint as soon as an abscess appears gives a chance of recovery. The mortality from the operation in his hands has been thirty per cent.

MULLER described an unusual outcome of acute osteomyelitis which he found three times in 400 cases. The disease, instead of resulting in an abscess and the formation of a fistula, produced a limited callous which clinically gave the appearance of a malignant tumor, such as sarcoma, rather than that of osteomyelitis. In two instances such a tumor was movable. In the center of the induration was a granulating cavity containing a small sequestrum.

In the Section for Obstetrics and Gynecology FREUND spoke of the final results of implantation of the uterus for the cure of obstinate fistula and total prolapse. The operation consists in tilting the uterus backward and sewing it into the fistula which other operations have failed to cure. In young women the permanent result of the operation was found to be cessation of menstruation. The continence of the bladder and rectum was perfect, as was the cure of the prolapse in older women. The possibility of coitus was removed except in certain instances in which the whole cavity of the uterus became dilated and its walls thin and soft. In all patients there was a notable atrophy of the uterus.

WERTHEIM described his method of vaginal implantation of the uterus for the relief of prolapse, which is a modification of the method recommended by Freund. The results were excellent. A short time after the operation the anterior wall of the uterus which lies bare in the vagina begins to skin over, and after eight or ten weeks this process is so complete that the abnormal condition is scarcely recognizable. Pain is so slight that the entire operation may be carried out without an anesthetic, an advantage in the case of certain elderly patients. By his modification of Freund's operation the possibility of coitus remains undisturbed.

AT the session of October 20th of the Imperial Royal Society of Vienna, BUDINGER showed a portion of the small intestine of a man who died of acute peritonitis. He had been ill for eight days with pain in the lower portion of the abdomen, and an incision had been made into a tender tumor under the supposition that it was a strangulated hernia. It proved to be an abscess cavity in a small hernial sac, and in it was found a sharp-pointed piece of bone about an inch and a half long.

There were two complete perforations through the wall of the small intestine. The gut was resected and sewed up, but the patient died of acute peritonitis.

SCHIFF spoke of the two different ideas held by different surgeons regarding the possibility of injury by prolonged exposure to the X-rays. Von Bergmann recently expressed his opinion that the X-rays are incapable of having either an injurious or beneficial effect, while others have reported marked improvement in various skin affections by the proper use of the apparatus. As an illustration of the latter, he presented some patients who had suffered from sycosis and favus, and whom he had presented to the same society a few months previously. They were all cured by the radiotherapeutic treatment, and up to that time there had been no sign of recurrence. The rapid and complete cure of favus was especially noteworthy.

At the session of October 27th KAPOSI showed a patient as an illustration of the injurious effects of the X-ray. An old man whose hand was frequently exposed to their influence for the purpose of epilation suffered from a dermatitis of the back of the hand, which was followed in spite of most careful treatment by ulceration, and finally necrosis of the extensor tendons. The speaker mentioned a number of other instances in which long-continued erythema, eczema, necrosis, and gangrene had developed three or four weeks after exposure to the X-rays.

BENEDIKT called attention to the fact that these injurious effects followed a therapeutic use of the rays, and that a short exposure for diagnostic purposes is in no way dangerous. In this opinion Kaposi and others concurred.

At the session of November 17th LANGER showed a coachman who had slipped in getting down from his cab, and scraped his back and left thigh in falling. In the right lumbar region some days later a soft tumor made its appearance about three times the size of the palm. The skin over it was slightly reddened, and it fluctuated plainly. The explanation given was that the scraping injury loosened the subcutaneous tissue, and that an effusion of lymph took place in the cavity thus formed. This is a pathological condition which has been studied by Gussenbauer. The resorption of such cystic deposits of lymph takes place very slowly. Pressure and the injection of irritating solutions having failed to accomplish this purpose, the cavity should be incised and allowed to granulate.

At the Berlin Medical Society, October 18th, HOLLANDER presented five sisters, all of whom were suffering from a diffuse hyperplastic form of goiter. No one of them presented serious symptoms of the nervous or circulatory systems. The chief interest in these cases lay in the fact that they were undoubtedly examples of hereditary goiter. The mother of these young women, as a girl, had lived in a goiterous district and had early developed a large goiter. She moved afterward to Berlin where she married and has lived there ever since. She had seven children, six of them being girls. Each one of the girls developed a goiter when about eleven years of age. Some of the growths were sufficiently large to interfere with respiration. Operation upon a goiter of this type is inadvisible as it usually reacts favorably under iodin either externally or internally administered. One of the patients received thyroid extract for about a month with a negative result.

At the session of November 1st ISRAEL showed a malignant tumor which had developed from an undescended testicle in a patient aged thirty-nine years. The attention of the patient had never been attracted to his inguinal region until a few months before when slight pain caused him to examine himself and he found a small prominence in the lower portion of the abdomen especially on the right side. At operation, the tumor was found to be retroperitoneal. Its under surface was in close contact with the external iliac artery and the bladder. Its removal was extremely difficult, but it was accomplished without injury to the surrounding structures. Microscopically it was found to be an alveolar sarcoma.

SOCIETY PROCEEDINGS

SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

Proceedings of the Twelfth Annual Meeting, Held at New Orleans, La., December 5, 6, 7, 1899.

DECEMBER 5.—FIRST DAY.—AFTERNOON SESSION.

(Concluded from page 814.)

DR. LEWIS S. MCMURTRY of Louisville, Ky., read a paper on

RECTOVAGINAL FISTULA.

He said that excluding cancer extending from the cervix uteri, rectovaginal fistula is due to traumatism, not to the compression of the tissue, as is vesicovaginal fistula, but extensive rupture of perineum involving the rectovaginal septum, cicatrizing inferiorly, but leaving a perforation above where the septum is thin and permits contact of vaginal and rectal mucous membranes, thus uniting these membranes and making a permanent opening. Wounds made in instrumentation through the vagina, and the pressure of foreign bodies retained in the vagina sufficiently long to produce ulceration and necrosis, are among the rare causes of this lesion.

The most common site is in the lower portion of the vagina, just above the sphincter muscles, and at the point already indicated where the septum is thin and the mucous surfaces are in close proximity one to the other. The opening is usually very small, and the mucous membrane is reflected around like a fringe, making its detection more amenable to touch than to sight.

The method usually applied to the repair of vesicovaginal fistulæ, whereby the edges are freshened in a funnel-shaped denudation, will rarely succeed in repairing a rectovaginal fistula. The action of the anal sphincter, the penetration of fecal matter, and the sparse layer of tissue prevent repair by this method. The divulsion of the sphincter muscle will not suffice to overcome this obstacle to success in the large proportion of cases. Ex-

tensive cicatricial deposit is another obstacle to repair by this simple procedure. The operation, in consequence, is resolved into a modified perineorrhaphy, by which the fistula is transformed into a complete tear of the perineum. The method of flap-splitting popularized by the late Mr. Lawson Tait is preeminently applicable to this procedure. By this method broad surfaces are supplied without loss of tissue and it permits gliding of the vaginal and rectal orifices of the fistula so as to interpose firm and healthy tissues. In exceptional cases, where the fistula is so low down as to be within the grasp of the sphincter, it will be best to divide the septum vertically, freshen liberally the margins of the fistula, and suture the surfaces as in complete laceration of the perineum.

In a very limited class of cases, wherein the fistula is small and cicatricial deposit is not extensive, a simple denudation and suturing after divulsion of the sphincter ani muscle might succeed. The flap-splitting method already mentioned would be found most applicable and should be preferred for general application. Vertical division of the septum should be the first step of the operation in low fistulæ with extensive cicatricial deposit, and the operation is then resolved, after paring the edges of the fistula into the operation for complete tear of the perineum. It will rarely be necessary to use buried sutures; when used, these should be of catgut and should be introduced after the Lembert plan. As already stated, the flat-splitting operation of Tait has the greatest field of usefulness in this procedure. The following case is of special interest, both on account of the unique cause of the fistula, and the consequent deduction that a very simple and common gynecological appliance is not without danger under certain circumstances.

Miss C. W., aged thirty-one, never married, a teacher, was the subject of a backward displacement of the uterus. In August, 1899, she applied to a physician for treatment, and a metallic pessary of the Hodge pattern was inserted. The pessary was placed on a Thursday by the physician who had referred the case to Dr. McMurtry, and the patient returned to her home some thirty miles distant from the physician. On the second day the patient began to suffer pain, which increased day by day, and when examined by the physician on the Monday following, the pessary was found protruding into the rectum and was removed per anum. When the patient was referred to him on October 6th, there was an opening in the recto-vaginal septum just above the anal sphincter of oval form that would readily admit the end of the little finger. The operation consisted of divulsion of the sphincter, separation of the vaginal mucous membrane, freshening the edges of the fistula, and suturing with Lembert sutures of catgut the rectal portion of the fistula, gliding and suturing the vaginal mucous membrane. Union was prompt and perfect, and the patient is now quite well.

DR. C. JEFF MILLER of New Orleans read the report of an interesting case of what he and others considered an ossified uterus. He presented the specimen.

SECOND DAY—MORNING SESSION.

DR. W. D. HAGGARD of Nashville, Tenn., contributed a paper on

THE SURGERY OF BILIARY CALCULI.

He emphasized the fact of the frequent finding of gall-stones in the abdominal cavity, but said their unsuspected existence was not a valid contraindication to operation in cases which, owing to certain complications, menace well-being and perhaps life itself. After enumerating the usually assigned cause of gall-stones, he impressed the undetermined probability of infection. The continuous pain in inflammatory and suppurative conditions of the biliary passages was contrasted with the intermittent and paroxysmal pain from biliary concretions. In connection with the diagnosis, the fact that jaundice was not essentially a sign of gall-stones was emphasized, and waiting for icterus as an evidence of their existence was hurtful.

The relatively small number of operations, compared with the frequency of the disease, indicated that they were either overlooked, failed to give rise to serious trouble, or that the symptoms were taken for other diseases. Surgery of the gall-bladder was almost perfected, but the management of calculi in the ducts by various methods was yet unsettled.

The following case of cholo-cholecystotomy for chronic catarrhal cholangitis with gall-stones was reported:

B. J. G., white, male, aged twenty-seven years. He had his first severe attack of biliary colic attended with tenderness and jaundice in February, 1897. He had had a severe light attack of hepatic colic some weeks before. He was operated on the day after he was taken with the severe attack by Dr. J. F. W. Ross of Toronto. A number of stones were removed, a fistula made, and a drainage-tube kept in for two weeks. The fistula remained open until June, 1897, when Dr. Ross closed it by suture, and the man, who had been in bed the whole of four months, was up in a week. In November, 1897, he again had a number of attacks of colic and jaundice, which kept up intermittently until March, 1898, when Dr. L. McLane Tiffany of Baltimore opened the gall-bladder, but finding no stones he closed it by immediate suture, fixing it to the abdominal wall, and closing the incision throughout. In June of the same year, while still in the hospital, he was again seized with attacks of colic and transient jaundice, which, in the absence of Dr. Tiffany in Europe induced his assistant, Dr. I. R. Trimble, to again open the gall-bladder for exploration. Dr. Trimble found no stones, and thought he succeeded in passing a rubber catheter through the cystic duct, and thence into the duodenum. The gall-bladder was sutured and attached to the abdominal incision, which was closed by buried and superficial silkworm-gut sutures. On July 3d he had received a blow on the skull with a piece of wood in the hands of a drunken assailant, which resulted in a fracture of the skull, which was elevated by Dr. Robert Pillow of Columbia, Tenn.

In August, 1899, fourteen months after the third gall-bladder operation the pain and colic returned, and were rather frequent and more severe than ever before. On October 1st he had a spell that lasted four days, and could obtain no relief from anything. He came to see Dr. Haggard in Nashville, and while there had one of the worst attacks he had ever seen of biliary colic. He gave

the patient 2¾ grains of morphin hypodermically in less than three hours, without any appreciable effect on the agonizing pain. He was not accustomed to taking morphin, and ⅙ grain after the operation had a very happy and full effect.

On November 12, 1899, in the presence of jaundice, which had existed pitifully for two months, Dr. Haggard made an exploratory operation through the old scar parallel with the ribs. As the gall-bladder was attached to the parietes it was opened, and a black, tarry fluid was found therein, and one single, large, gall-stone, soft, and perfectly black, and somewhat larger than a cherry stone, together with some smaller crystal-like stones. An effort was made to catheterize the ducts, as had been reported to have been done before without success. The gall-bladder was irrigated and packed with gauze temporarily. It was then dissected from the parietes below and a careful palpation of the ducts was made, but no other stones could be detected. The adhesions were considerable, as the result of so many previous operations and such long-continued inflammatory trouble, and the gall-bladder was much contracted. Kelly, Senn, and Murphy had all advised a cholecystectomy, but after he found no calculus obstruction to account for the recent colic and existing jaundice, he concluded it must be a chronic catarrhal cholangitis with inflammatory obstruction that came and went. He therefore deemed it unwise to do a cholecystectomy and decided to do a cholecystenterostomy. The duodenum, however, was so matted with adhesions, and the gall-bladder was contracted to such an extent, that he did not think he could make the anastomosis with safety. He therefore utilized the hepatic flexure, and made a Murphy-button anastomosis with gauze drainage. There was no untoward symptom; a little bile came out after the gauze, when it was removed on the third day, but none thereafter, the drainage-tract closed quickly. The jaundice faded, the urine cleared up, and the patient had two normal bowel actions a day, whereas he had been previously taking purgatives daily. He went home at the end of two weeks with a clear complexion, and a gain in weight, and has had no trouble since, but the button has not passed. McGuire reports a button retained over a year in cholecystenterostomy, but Treves has never had one remain in the gall-bladder.

In the discussion DR. F. W. MCRAE of Atlanta narrated a case operated upon a few months ago in which a diagnosis of cholecystitis was made. At the operation an unusual condition of affairs was found. Instead of a distended gall-bladder, he found enlargement of the liver, with great distention of a cavity in this organ, hard and nodular to the feel, and occupying this cavity and some small pockets in various directions in the liver were fifty-eight stones, which he exhibited. The adhesions were extensive, but no pus was found.

DR. J. G. EARNEST of Atlanta directed attention to the symptom jaundice, saying that it does not appear unless there is obstruction of the common duct. Simple obstruction of the cystic duct does not necessarily produce jaundice. In two or three cases in which he has found the gall-bladder filled with inspissated mucus and complete obstruction of the cystic duct, but no obstruction of the common duct, there was no jaundice, while in other instances of common duct obstruction, jaundice was present.

DR. HUGH M. TAYLOR of Richmond, Va., recalled a case which was diagnosticated at first as cholecystitis. The patient had been jaundiced for six weeks. The abdomen was opened, and on incising the gall-bladder and removing a stone from it, he found no obstruction of either the cystic or common duct. He did a cholecystostomy, drained the gall-bladder, but the patient did not recover health. Two months later he reopened the abdomen, and, after a very careful examination, found malignant disease of the head of the pancreas sufficient to press upon the common duct and produce jaundice.

DR. MANNING SIMONS of Charleston, S. C., reported a case in which he removed the whole gall-bladder, and said, after a careful search of the literature at his command, he could find reports of only twenty cases. The tumor in his case presented just below the ninth rib as large as a goose egg. An exploratory operation was made, and the tumor was found to be the gall-bladder. The gall-bladder was removed because its walls were greatly thickened and pus had disseminated itself throughout its walls. He believes that if the gall-bladder had not been removed at that time, and promptly, there would have been extravasation of pus into the abdominal cavity. Three gall-stones were found. There was very little jaundice present.

DR. A. M. CARTLEDGE of Louisville, spoke of the cholemic cases, and said that in the use of the normal saline solution, employed subcutaneously or per rectum, for ten days, two weeks, or, in bad cases, three weeks, before operative interference, surgeons had one of the most valuable means of overcoming cholemia in patients with gall-stones.

DR. WILLIAM P. NICHOLSON of Atlanta followed with a paper, entitled

INFLAMMATION OF MECKEL'S DIVERTICULUM WITH RESULTING GANGRENE OF THE INTESTINE SIMULATING APPENDICITIS.

The pathological conditions arising from the diverticulum have been in most cases due to portions of the intestine being entrapped within the encircling cord where the diverticulum has existed in this form; while in some instances there has been an acute inflammation of the pervious tube that has caused adhesions and resulting obstruction. Again, the inflammation seems to have extended to the intestinal tube causing paresis of the bowel, especially simulating the later stages of appendicitis. In a few cases the symptoms and signs have been so much like inflammation of the appendix that a diagnosis has not been possible.

The author reported an interesting and instructive case, and mentioned briefly other cases he had found in consulting the literature. He also reported a case of successful implantation of an artificial testicle.

DR. T. J. CROFFORD of Memphis reported

TWO CASES OF INTRALIGAMENTOUS CYSTS.

CASE I.—Miss T., aged fifty, presented herself with an abdominal tumor July 1, 1899. A few days later the abdomen was opened. The tumor was found to be an intraligamentous cyst. Both ovarian arteries were ligated; the uterine artery was ligated upon the healthy side at as low a level as the internal os. The uterus was cut across; the uterine artery secured upon the tumor side and the enucleation of the tumor proceeded with. The loss of blood was considerable, although the enucleation was done rapidly. Several arteries in the broad ligament required ligation, and one or two deep down in the pelvis needed to be secured before hemorrhage was under control. The cavity was obliterated as much as possible by suturing together the two layers of the ligament. The woman recovered.

CASE II.—Mrs. S., aged forty-two, presented herself with an abdominal tumor October 31, 1899. During the month of June last she experienced an attack of acute peritonitis which came near terminating her life. The acuteness of the attack subsided, but a chronic peritonitis has existed ever since. Abdominal section was made November 6th. There were found two tumors, one on each side, developed between the layers of the broad ligaments. The ovarian arteries were secured near the brim of the pelvis. The tumors, which were not of very large size, were separated from the uterus as far down as the operator dared, and the uterine arteries were secured as low as possible after emptying the cysts. The hemorrhage was alarming at every attempt at enucleation upon all sides. The larger vessels in the broad ligaments and walls of the cysts, several in number, were, therefore, ligated. The upper portion of the sacs was trimmed off and covered with peritoneum. After the oozing had stopped the abdomen was closed without drainage. The patient has had an uninterrupted convalescence and has returned to her home.

The essayist said that Dr. Rufus B. Hall of Cincinnati had proposed the method of ligating both ovarian arteries and the uterine artery on the healthy side. The uterus was next amputated on a level with the internal os; the uterine artery on the tumor side was not secured, when he could peel out the cyst from between the layers of the broad ligament with a bloodless result. While he did not wish to detract from the merits of this achievement, yet the method is not to be implicitly relied upon as it will not control hemorrhage in all cases to a safe degree; that in some instances there will be found other vessels requiring ligation before the hemorrhage can be controlled within the bounds of safety. Some tumors of the broad ligament can be peeled out without hemorrhage; others will be attended with considerable loss of blood.

THE PRESIDENT'S ADDRESS.

This was delivered by DR. JOSEPH TABER JOHNSON of Washington, D. C. He touched on general subjects pertaining to the work and growth of the association. The Southern part of our country had furnished many noted surgeons and gynecologists to the medical profession, hence the name of the association derived greater appropriateness and significance from this fact. McDowell, Eve, Dudley, Sims, Thomas, Battey, and Emmet were referred to. The best gynecologists are now the best surgeons as far as they go. In abdominal, pelvic, and genital surgery, few general surgeons equal, and none surpass them. Their field of work was more narrow but none the less perfect and important on that account. While many gynecologists might take exception to such an absorption of their specialty, the gradual expansion of their work to the female pelvis gives the important argument for such an occurrence in the not distant future. It is not difficult to remember when gynecology was limited altogether to vaginal and pelvic work. Now, there are very few gynecologists who were not operating upon any tumor between the diaphragm and the vulva. The gynecologists attack ulcers and abscesses of the stomach and anastomosed that organ with the intestine. They did all surgery of the ureter and kidney, the liver and gall-bladder, of the intestines, the spleen and pancreas. They operate for appendicitis and for all the varieties of hernia, and did the surgery of the bladder, the rectum, and the mammary gland.

There was no afternoon session of the second day. The members and guests took the steamer "Warren", and rode to the sugar plantation "Stanton, owned by Milliken and Ruttledge, and inspected it.

SECOND DAY—EVENING SESSION.

DR. HUGH M. TAYLOR of Richmond, Va., read a paper on

EXPERIENCE IN OPERATIONS FOR TYPHOID PERFORATION.

It is claimed that one-third of the deaths from typhoid fever are due to perforation. Typhoid perforation is credited with a mortality of 16,660 each year in the United States. The specialist in surgery appreciates what surgery can do and has done in the treatment of typhoid perforations. The general practitioner, in whose hands these cases annually first fall, is not so well informed, and he believes the Association should express itself in no uncertain sound. It is claimed, too, that one-fifth of the deaths from typhoid fever are due to hemorrhage. This being so, it would seem just as unsurgical to let a typhoid patient die without an effort to save his life as it would be in the case of profuse hemorrhage from a gastric or duodenal ulcer, or even a ruptured tubal gestation. The author reported five cases, with one recovery from operation.

Less than 200 cases have now been operated upon. When one recalled the thousands of cases annually occurring, the need for cooperative study is apparent. Nothing short of a moribund condition of the patient should warrant surgeons in abandoning a case as hopeless. The key to success is early operation. More than one-fourth of the cases operated on have been saved by early surgical intervention. He believes that surgeons should be able to save more than 33⅓ per cent. by a time operation.

DR. F. W. MCRAE of Atlanta, Ga., reported some

interesting cases of abdominal surgery. The first case was one in which he operated for a pancreatic cyst; the second for hepatic calculi; the third for fecal fistulæ, and in the fourth case he did a combined appendectomy and nephrorrhaphy.

LITHOLAPAXY.

DR. GEORGE S. BROWN of Birmingham, Ala., read a paper with this title. A very limited experience with the operation of litholapaxy has led him to believe that it is being unwisely, although not altogether unreasonably, neglected. The most important cause for this neglect was that perhaps cutting operations, particularly the suprapubic, are very easy to do, and the results are very satisfactory. The author quoted the statistics of the different methods of operating for stone in the bladder, and reported cases in which he had resorted to litholapaxy with good results. The majority of stones met with in practice in this country can be removed with the lithotrite in the hands of an ordinarily careful surgeon, and that while it is not an operation to be undertaken by the general practitioner, no operating-room should be without one; suffering and time spent in bed are almost entirely eliminated, and the mortality is very much lower than that for either of the cutting operations.

DECEMBER 7TH—THIRD DAY—MORNING SESSION.

DR. E. D. FENNER of New Orleans, La., reported fifteen cases of spinal injuries treated at the Louisiana Charity Hospital.

DR. GEORGE H. NOBLE of Atlanta, Ga., described the modification of an operation for cystocele. He also reported a case of seventeen years' congenital nocturnal incontinence of urine and one of pregnancy in a uterus bicornus.

DR. I. L. WATKINS of Montgomery, Ala., presented a paper on "The Treatment of Retrodisplacements of the Uterus."

The following officers were elected: President, Dr. A. M. Cattledge, Louisville, Ky.; vice-presidents, Dr. Manning Simons, of Charleston, S. C., and Dr. W. P. Nicholson, of Atlanta, Ga.; secretary, Dr. N. E. B. Davis, of Birmingham, Ala.; treasurer, Dr. W. D. Haggard, Jr., of Nashville, Tenn. Atlanta, Ga., was selected as the place for holding the next annual meeting. The time for meeting was the second Tuesday in November, 1900.

THE NEW YORK COUNTY MEDICAL ASSOCIATION.

Regular Meeting, Held November 20, 1899.

DR. F. HOLME WIGGIN, President, in the Chair.

DR. EMIL MAYER of New York City read a paper, entitled

THE TONSILS AS PORTALS OF INFECTION.

In his remarks he called attention to the fact that certain forms of infectious disease follow closely on tonsillar infection, the same micrococci existing in the former as in the latter, thus proving their tonsillar origin. Some of these facts are well known, while some others being but recently promulgated are not, and have, therefore, received but scant consideration.

The importance of a study of these conditions becomes very necessary in that most important field, preventive medicine. The pathology of the tonsil in disease was discussed, and the work of Hodenpyl, Patterson, Goodale, Cobb, and others mentioned. A result of these studies was reached in the conclusion that acute tonsillitis furnishes an entrance for bacteria into the system through the tonsils, and that this belief explains a pericarditis, for instance, and makes a belief in its rheumatic origin unnecessary.

A number of authorities were quoted showing conclusively the tonsillar origin of rheumatism. Other conditions noted to have followed directly after anginas were albuminuria, erythema, urticaria, purpura. erysipelas, orchitis, and oophoritis, pleuropneumonia, strabismus, paraplegia, and osteo-myelitis.

Angina pectoris has been reported to have followed tonsillar disease in four cases. Phlebitis of the leg, pneumonia, and purulent pleurisy are recorded as following disease of the tonsil. The tonsils have long been suspected as being the points of infection in tuberculosis, while it was well known that otitis media with its mastoid and intracranial complications followed tonsillar disease. It has been shown quite lately that endocarditis must be added to the list.

The case reported by Charrin was cited, that of a young man of eighteen years, who died of general pyemia consequent to tonsillar affection. The autopsy showed bronchopneumonia and deposits on the tip of the pulmonary valves. Staphylococcus aureus was found there and also on the white tonsillar exudate. Other cases were cited from the literature, including the five reported by F. A. Packard of Philadelphia. To these the writer was enabled to add another which was seen by himself, for the history and diagnosis of which he was indebted to Dr. Jacob Fuhs of Brooklyn. In this case hemichorea subsequently developed. Recovery was complete.

Granting that the etiologic factors of some of the infectious diseases have been established, it becomes a duty to take steps tending to prevent such infection. Vigorous treatment with rest in bed was advised for the follicular tonsillitis, while the abortive treatment should be attempted in the cases of peritonsillitis. This, the writer said, he had been able to do so frequently that he declared it to be an established clinical fact if the patient was seen early. The remedy consisted of:

℞	Morph. sulph.	gm. 0.06
	Tr. veratr. virid.	4.0
	Aq.	126.0.

M. S. Teaspoonful every hour for three hours; then once in three hours.

In twenty-four hours all symptoms are gone. If not, the remedy is no longer efficacious, and the tedious wait of ten days of agony must be undergone.

After these anginas have subsided, a very careful examination of the fauces should be made, and every bit of tonsillar tissue removed either with the Farlow gouge or the galvanocautery.

The ordinary tonsillotomy was not sufficient.

The strictest attention to hygiene of the mouth should be enjoined even after thorough ablation of the tonsil. Under no circumstances whatever should any operative procedures be undertaken while an acute process is going on.

The conclusions arrived at were:

1. Infection arises in the tonsil.

2. Tonsillar affections are frequently serious in their sequelæ, and every step to prevent recurrent attacks should be taken.

3. The existing tonsillar disease should be energetically treated.

4. Careful examinations and treatment are absolutely essential in the interim.

5. Following anginas, the heart and other organs should be examined from time to time.

DISCUSSION.

DR. ISAAC ADLER opened the discussion. He said that he was indebted to Dr. Mayer for presenting this subject, as it was one in which he was especially interested. Regarding the pleuritic affection, this, he said, was indubitably proven. A rheumatic diathesis could not be regarded as a fact since the disease was the result of an acute infection.

He was not prepared to accept the pneumonia and angina pectoris cases as fully proven, although the pleurisy cases certainly were. Regarding the case of endocarditis cited, it seemed to him from the physical signs reported and absence of temperature that it was one of myocarditis. This was important, for it would explain much that was hitherto misunderstood if it could be explained that a myocarditis was as apt to follow a tonsillar angina of a non-diphtheritic nature as it so frequently did in diphtheria.

DR. F. A. PACKARD of Philadelphia spoke of five cases he had previously reported, and added two more to the list. It was noteworthy that the patients had had no cardiac affection previous to the tonsillar attack. Endocarditis supervening, valvular lesions occurred in all, and have remained.

DR. F. J. QUINLAN endorsed the views of the reader of the paper, and dwelt particularly on the aural and cerebral complications that follow tonsillar diseases.

DR. S. S. JONES said that he felt that an explanation of the possible cause for the sudden deaths that followed a simple tonsillar affection had been offered.

DR. MAYER, in closing, said that he was disposed to agree with Dr. Adler with reference to the case he had reported as being myocardial rather than endocardial, not only because of absence of fever, but because of the subsequent cure of this case, for he noted that every one of Dr. Packard's cases still had their valvular lesions, which is so true of endocardial inflammations, and this would also explain the point raised by Dr. Jones.

He failed to agree with the suggestion that the trouble was in the nasopharynx, for it was contrary to every observation, and, indeed, it was only possible to view this question from the standpoint of the general practitioner.

He wished to be clearly understood as referring to tonsils subject to disease only, but when these are frequently the seat of disease no simple tonsillotomy was sufficient, but complete extirpation is required.

REVIEWS.

PYORRHEA ALVEOLARIS. By JOHN FITZGERALD, L.D.S., Dental Surgeon to the Italian Hospital and to the National Hospital for Diseases of the Heart and Paralysis, Soho Square, London: The Medical Publishing Co., Limited, 1899.

A COLLECTION of articles previously recorded in the *Clinical Journal* makes up this small brochure. It gives a fairly complete survey of this subject so familiar to the dentist, the importance of which the author endeavors to bring home to the physician by emphasizing its clinical relation to some diseases of the stomach. Its far greater surgical import has been neglected inasmuch as there is no mention of its relationship to inflammation of the inferior maxilla and cervical glandular enlargements. The American literature is extensively quoted.

BACTERIOLOGY IN MEDICINE AND SURGERY. A Practical Manual for Physicians, Health Officers and Students. By WM. HALLOCK PARK, M.D., Associate Professor of Bacteriology and Hygiene, University and Bellevue Hospital Medical College, and Assistant Director of the Research Laboratories of the Department of Health, City of New York. Assisted by A. R. GUERARD, M.D., Assistant Bacteriologist, Department of Health, City of New York. Illustrated with 87 engravings and 2 colored plates. New York and Philadelphia: Lea Brothers & Co., 1899.

WE have seen no work of recent time, which in small compass, has so thoroughly covered every-day practical bacteriology as does this manual of 683 pages with 36 chapters and an appendix. Eighteen of the chapters are concerned with general bacteriology; historical sketch, general morphologic characters, chemical composition, vital phenomena, relation to disease, immunity and its theories, infection, effects of physical agents on bacteria, temperature, chemical agents, practical disinfection of houses, persons, instruments, foods for adults and infants, preparation and technic of staining, cultivation of bacteria and media, animal experimentation, human investigations, bacteriological examination of water and air and the classification of bacteria are the subjects treated in these 18 chapters. The succeeding chapters describe, especially from the hygienic or medical, rather from the more technical bacteriological standpoint, the many important bacteria of disease, the bacillus tuberculosis and its allies, influenza, diphtheria, tetanus, and typhoid bacilli, the baccillus coli communis, the micro-organisms of pneumonia, abscess production, meningitis, anthrax, glanders, bubonic plague, and cholera.

To these there is added an appendix of four chapters in which there is given a brief description of a few representative pathogenic micro-organisms which are not usually grouped with the bacteria. These are actinomycosis, favus and ringworm; the plasmodium of malaria, and other animal parasites, amebæ, the micro-organisms of smallpox and cowpox and a general discussion of hydrophobia. In addition to the ordinary index there is an extremely convenient index of infectious diseases with the bacteria found in them.

For the practical purposes of the doctor this volume will be found extremely useful. The author has escaped the prolixity of superflous compilation on the one hand and the barrenness of direct copying from other text-books on the other and has crystallized in a simple, forceful manner a great amount of his own wide experience. We believe that the book can be heartily commended to those for whom it was written, the student, health-officer, and practitioner.

THE MEDICAL NEWS VISITING LIST FOR 1900. Weekly (dated, for 30 patients); Monthly (undated, for 120 patients per month); Perpetual (undated, for 30 patients weekly per year); and Perpetual (undated, for 60 patients weekly per year). New York: Lea Brothers & Co., 1899.

THIS well-known visiting list has appeared. It is, perhaps, a little more attractive than usual, by reason of its alligator-skin cover, which renders it durable as well as enhances its appearance. It includes formulæ, antidotes for poisons, pages for general memoranda, obstetric engagements, deaths, vaccinations and accounts. For the purpose, we know no visiting list which will better suit the purposes of physicians.

THERAPEUTIC HINTS.

Local Massage in Exophthalmic Goiter.—ZABLUDOWSK, of Berlin has been able by means of a system of massage to effect decided amelioration of the chief symptoms of this disease, especially when the goiter was of the soft pulsating variety. He begins by kneading the gland up and down and from side to side, using both hands as if squeezing a sponge. This is well borne if only part of the gland is treated at a time. If the goiter is very sensitive the massage is carried out by one hand, while the other is used to percuss the spine, this procedure having a good effect on the tachycardia. In addition, Zabludowski practises intermittent and vibratory percussion of certain nerves at the most accessible part of their course the pneumogastric, chief trunk of the sympathetic, occipital, cervical, and the intercostal. He recommends, further, passive movements of the whole body, the muscles being weak as a result of poor nutrition. In from four to six weeks marked improvement is evident.

Treatment of Night-sweats of Phthisis by Formaldehyd.—The good results of treatment by this drug seen in cases of hyperidrosis and bromidrosis caused HIRSCHFELD of Berlin to try its action for phthisical sweats. He now recommends it highly. Because of its power of penetrating the skin he uses an alcoholic solution, as follows:

℞	Formaldehyd, forty per cent. } Spiritus abs. }	aa.	℥ ii.

M. Sig. External use. Apply on a swab.

Only one part of the body is treated at one sitting; the shoulders and arms, for instance, on the first day, the lower extremities on the day following, and the trunk on the third. From 1 to 2½ drams of the solution is used each time. By following this method toxic absorption and excessive irritation of the ocular and respiratory mucous membrane are alike avoided. If, nevertheless, a fit of coughing should be provoked, the application should be made very rapidly and the part covered at once. Cotton wet with spirits of turpentine can be held in front of the nose and mouth of a sensitive patient. The treatment is not painful, only a momentary burning sensation being produced. Newly formed epidermis, excoriations, and mucous surfaces should, of course, be avoided. The effect of the application lasts from five days to a month, as a rule from one to two weeks. The sweats cease meanwhile, and as no injury is caused by the treatment it can be resumed whenever necessary.

Mercurial Ointment for Malignant Pustule.—When situated on an eyelid or lip, for instance, it is very undesirable to treat the pustule by injections, cautery, or excision on account of the deforming cicatrix which would result. REINA (Italy) has in such cases effected perfect cures by applications of mercurial ointment, sometimes first touching the pustule with a few drops of nitric acid. Recovery was rapid and the scar hardly perceptible. He regards the ointment as superior to the cautery or injections of carbolic in its influence on the disease process.

For Psoriasis.—

The following formula is said to be an improvement on that of HELMURICH in regard to consistency, and because, unlike the latter, it does not darken the skin:

℞	Sulphuris sublim.	℥ i
	Potassii carb.	℥ ss
	Aq. dest.	℥ ii
	Lanolini anhydr.	℥ ss
	Vaselini	℥ ii.

Mix the sulphur with the lanolin. Then add the vaselin. Dissolve the carbonate of potassium in the water and stir the solution, a little at a time, into the ointment.

Pomades Made with Yolk of Egg.—UNNA (Hamburg) recommends this form of pomade, since it dries quickly and forms an adherent covering, and is a veritable base for any of the usual medicaments—ichthyol, sulphur, turpentine, starch, etc., which may be added in the proportion of ten per cent. To prevent decomposition one per cent. balsam of Peru should be added. The pomade is especially serviceable for cases of eczema, acne, and scabies.

℞	Yolk of egg	2 parts
	Olive oil	3 parts.

Rub together as if for a mayonnaise.